I-II

THE CINCINNATI SOUTHERN RAILWAY

A STUDY IN MUNICIPAL ACTIVITY

A MEMORIAL OF LUCIUS S. MERRIAM, PH. D. (J. H. U.)

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HERBERT B. ADAMS, Editor

History is past Politics and Politics present History.—*Freeman*

TWELFTH SERIES

I-II

THE CINCINNATI SOUTHERN RAILWAY

A STUDY IN MUNICIPAL ACTIVITY

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A MEMORIAL OF LUCIUS S. MERRIAM, PH. D. (J. H. U.)

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I.

INTRODUCTORY.

The municipal construction of a railroad several hundred miles in length, extending through a series of States, and involving the expenditure of many million dollars and a long period of time, is as anomalous as it is remarkable. A characteristic of American city administration has been the limited scope accorded public activity. The material conditions under which urban development in the United States has taken place are in large measure responsible for this state of affairs. Yet careful analysis will disclose important indirect influences, as the political philosophy of the period, the *laissez-faire* doctrines of the classical political economy, and the reaction against internal improvements in the United States. The stress of changed conditions within the present decade has tended to enlarge the scope of municipal activity, and made further expansion in the near future likely. Without urging a larger resort to public agencies as the panacea for all municipal ills, it seems clear that, with the growth of the American city in area and population, with the continued influx of foreign elements into an already congested mass, with a keener consciousness of social conveniences and responsibilities, all contributing to a new complexity of municipal life,—the assumption by the city of many functions new in kind and degree may be expected. It is this fact which renders any exercise of wide municipal activity in the United States of particular interest. European

experience in local administration offers a rich field for suggestion and instruction. Yet we are continually reminded that local self-government, a professional civil service or a qualified suffrage present fundamental conditions essentially different from those about us, and that it is from our own experience, unfortunately fragmentary and inadequate, that the first lesson is to be drawn.

Aside from the general interest attaching to the Cincinnati Southern Railway as an exercise of wide municipal activity, the particular conditions which compelled municipal construction are noteworthy. The necessity of some central control of local administration "to insist on the discharge of certain functions, to prevent the undue extension of others, and to protect the interests of individuals against the encroachments of local authorities," follows from the very nature of local government.[1] Particularly with regard to financial matters is this true. Local borrowing is at best "an agreeable process," whose evil effects are only seen reduced through the vista of time. When extravagant social and industrial improvements are regarded as essential to municipal development, when a controlling influence in municipal affairs is exerted for unworthy ends, or by persons having no material interests at stake, the desirability of regulation becomes more apparent. In England, France and Prussia, the local borrowing power has been subjected to central discretionary supervision and limitation. In the United States, the control over local administration, inherent in the State and exercised by ordinary legislation and by the grant and amendment of charters, has been supplemented by the insertion of restricting clauses in the written constitution. This attempt to introduce rigidity and uniformity where elasticity and variety are essential, has been unsatisfactory. In some cases, as where specific local legislation is prohibited, or where the municipal rate may not exceed a fixed per centum of the taxable basis, easy devices have been found

[1] Bastable, *Public Finance*, pp. 120-121.

to evade the spirit of the restriction. In other instances, the end denied has been attained only by means more hazardous than that proscribed. The power whose exercise is prohibited is ordinarily one that has been subject to grave abuse, and with regard to which, the wisdom of strict control is obvious. It may, however, well be doubted whether a rigid general enactment, legislating for all times and all conditions, offers the proper remedy. Certainly the history of the Cincinnati Southern Railway affords forcible illustration of the danger to which, with the marked variety and quick change of modern industrial life, a local body may by such a limitation be exposed.

II.

The Necessity of the Railway.

During the early decades of the present century, Cincinnati was the most important commercial center of the West. In 1820, Chicago had not yet come into existence, St. Louis was a mere trader's settlement, and Louisville a modest town of some four thousand inhabitants. The traffic of the entire region drained by the Mississippi river and its tributaries was transported by water, and Cincinnati was practically the only market in which the surplus products of the South and West could be exchanged for eastern and northern manufactures. The application of steam to river navigation in the decade between 1820 and 1830 greatly strengthened and developed these natural advantages. Louisville and St. Louis rose about the same time to commercial importance, but their competition only served to stimulate the growth of the older city. Population increased from 9,642 in 1820 to 161,044 in 1860, and remained throughout this entire period the largest of any city west of the seaboard.[1] Commercial relations extended from Pittsburgh to Fort Benton, Montana, and from St. Paul to New Orleans. Particularly with the South, as a result of advantageous location and intimate acquaintance with the tastes and habits of southern merchants, a large and profitable business was enjoyed.

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[1] The population of the four cities, as shown by the several census reports, was as follows:

	1820	1830	1840	1850	1860	1870
Cincinnati	9,642	24,831	46.338	115,435	161,044	216,239
Chicago	——	70	4,470	29,463	112,172	298,977
St. Louis	——	5,862	16,469	77,860	160,773	310,864
Louisville	4,012	10.341	21.210	43.194	68,033	100,753

See *Report on Internal Commerce and Navigation of the United States*, 1880, p. 73.

Recognizing that the natural empire of trade lay in this direction, clear-headed Cincinnati merchants early urged the improvement of existent means of communication. Already in 1835, five years after the feasibility of steam locomotion had been demonstrated, a public meeting was held for the purpose of considering the subject of railway transportation between Cincinnati and the cities of the South Atlantic. An active part was taken in the agitation which, in the following year, secured the charter of the Cincinnati, Louisville and Charleston Railway, and a memorable event in early municipal history was a wonderful illumination of the city, amid falling snow, in February, 1836, in celebration of the grant of right of way to this road by the Legislature of Kentucky. Cincinnati sent a strong delegation to "the great southwestern railroad convention," held in furtherance of the project in Knoxville, in the following July, at which delegates were present from Indiana, Ohio, Kentucky, Virginia, Tennessee, Georgia, Alabama, South Carolina, and North Carolina, and over which Governor Hayne of South Carolina presided. The proposed road was here endorsed, and a route selected from Charleston, South Carolina, along the French Broad through Cumberland to Cincinnati. The Kentucky charter required the construction of branch roads from some point in the southern portion of the State to Maysville and Louisville. This burdensome condition delayed the commencement of work until the financial crash of 1837, when, under the general industrial and financial depression, the project, with all that it promised, was for the time abandoned. Agitation for a southern railroad was renewed at intervals in Cincinnati during the next fifteen years. The constitution of Ohio permitted special acts of legislation authorizing cities, towns or townships to become stockholders in private corporations, and in the general spirit of the period, encouragement was given to various unsuccessful railroad companies organized for the purpose of providing direct access to the South.

By the year 1850, the reaction against public works in

Ohio had fairly developed. The State debt at that time amounted to over eighteen millions of dollars, and "as business enterprises both the public works and the private concerns aided by the State were failures."[1] The abuses of rash wild-cat speculations made in the mad fever for internal improvements by cities and counties throughout the State had grown very serious. Most of the stock so subscribed had become utterly worthless, and the greatest difficulty was experienced in the assessment and collection of the heavy taxes necessary to meet the bonds by which the subscriptions were paid. Legal processes had repeatedly to be employed, counties attempted repudiation, and the public credit was greatly shaken.[2] The general situation was so ominous that the Constitutional Convention which met in 1850 not only prohibited State aid of any kind to public works, but inserted, by a decisive vote of 78 to 16, the following clause in the new document:[3]

Art. VIII. Sect. 6.—"The General Assembly shall never authorize any county, city or township, by vote of its members or otherwise, to become a stockholder in any joint stock company, corporation or association whatever, or to raise money for, or loan its credit to or in aid of such company, corporation or association."

The insertion of this clause definitely removed the possibility of Cincinnati securing railroad connection by subscription to any private enterprise.

In the meantime, the local necessity for improved means of communication with the South had grown in urgency. Commercial supremacy in the West and Northwest departed from Cincinnati with the inauguration of railroad transportation in the valley of the Mississippi. The area of trade was

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[1] Charles N. Morris, *Internal Improvements in Ohio*; in *Papers of the American Historical Association*, vol. iii., p. 107.

[2] Walker *vs.* City of Cincinnati, 21 Ohio St., 14.

[3] Poore, *Charters and Constitutions*, ii., p. 1473. For the long and interesting debate which preceded its adoption, see *Debates of Constitutional Convention of Ohio*, 1850-51, ii., p. 800 *et seq.*

greatly enlarged, but the number of competing points more than proportionately increased. Three distinct lines to the sea-board brought in New York, Philadelphia, Baltimore and Boston as active competitors for trade north of the Ohio river. The Chicago and Rock Island Railroad, with connections completed in 1854, gave Chicago access to the northwestern region of Dakota, Nebraska, Minnesota, and Iowa. St. Louis reached out in all directions, increasing connecting mileage in Indiana, Illinois, and Missouri from 339 miles in 1850 to 4186 miles in 1856.[1] Cincinnati responded to this general movement by active railroad construction and extension. The mileage of Ohio grew from 299 miles in 1850 to 1869 miles in 1856.[2] But the exclusive advantages that had existed with respect to water transportation no longer prevailed. The closer proximity and momentum of growth of the new cities, the ease of railroad construction in the West, more than compensated for the advantages of established industries and defined lines of trade.

In the South, Cincinnati retained a dominating position for some years longer. Railroads constructed during the early part of the decade were largely tributary to river transportation, or local lines offering little competition to river traffic. In 1859, however, the Louisville and Nashville Railroad was opened for through travel, and Louisville, the most active competitor of Cincinnati for Southern trade, was placed in direct communication with Nashville, thence by connecting roads, with Knoxville, Chattanooga, Memphis, Augusta, Charleston, and almost every important point in the South. The superior rapidity and regularity of railroad transportation at once asserted itself, and a steady deflection of traffic from the river to the railroad, that is, from Cincinnati to Louisville, set in.

The graver aspect of the situation now engaged general

[1] *Internal Commerce of the United States*, 1882: Appendix, p. 285.

[2] *Report of Secretary of State of Ohio*, 1880, p. 625. The greater part of this was directly tributary to Cincinnati.

attention. Efforts were renewed to secure the construction of an independent Southern railroad by private enterprise, but without success. It was a period of quick active speculation, with abundant opportunities for secure investment and immediate returns. The length of the proposed road, the unusual topographical difficulties of the route, the probable cost of construction, the slow development of local traffic, the certainty of bitter competition from an intrenched corporation, and the necessity for practically completing the line before profitable connections could be secured, presented difficulties to outside capital which the obvious local desirability of the road could not overcome. Various propositions were suggested to evade the constitutional prohibition of municipal aid, but these were one after another demonstrated impracticable.

In 1859, an attempt was made to stimulate private enterprise by the offer of a cash bonus to be raised by individual subscription. After some negotiation, the Cincinnati, Lexington and East Tennessee Railroad, in operation from Lexington to Nicholasville, Kentucky, proposed to extend its rails to Knoxville, Tennessee, upon the condition that the sum of one million dollars should be so provided. The Kentucky Central Railroad was already in operation between Cincinnati and Lexington, and the proposed extension would practically give Cincinnati an independent line into the heart of Southern territory. The offer was conditionally accepted, and subscription lists circulated. Many persons, whether convinced of the futility of the project, or believing that the necessary amount would be raised independently, failed to respond as expected, and after a little more than half of the entire sum had been secured, no further progress was made. Modifications of the original plan were suggested, but before anything could be accomplished the muttering of the approaching civil storm had diverted public attention in other directions, and all agitation was abandoned.

During the war the absence of a Southern railroad was keenly felt. A direct line connecting Cincinnati with some

commanding point in the South, appeared so obviously necessary to successful military operations that one of the early messages of President Lincoln to Congress urged its construction.[1] Surveys were ordered by General Burnside, and lines run by Mr. W. A. Gunn, of Lexington, Kentucky, from Nicholasville, south to the Cumberland river.[2] Somewhat later a draft of negroes was actually made for the preparation of grades. No immediate action was, however, taken by Congress, and in the excitement of immediate developments the enterprise was allowed to drop. But for the failure of local representatives to press the President's recommendations upon Congress, and the abandonment of the projected advance against Cumberland Gap, it is probable that the construction of a Southern railway would have been at least undertaken by the national government.[3]

The commercial interests of Cincinnati suffered much from the events of the war. Trade with the Southern States was practically cut off, and manufacturing and commercial interests were paralyzed. The demand for military supplies later developed feverish activity in certain industries, but the stimulus was artificial, and its evil effects were felt in the reaction which followed the close of the struggle. When business interests returned to normal development with the revival of the prostrate industrial life of the South, it appeared that the four years of strife had firmly established the deflecting tendencies of the preceding period. Just as the rich stream of immigration had been diverted from the valley of the Ohio to the fertile region of the Northwest, so the new channels of trade, which the dawning revolution in means of transportation had indicated, were now permanent and predominant. By 1868, the general traffic of the North

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[1] *Congressional Globe*, Dec. 3, 1861: Appendix, p. 1.

[2] Mr. Gunn was subsequently appointed Chief Engineer of the Cincinnati Southern Railway and directed the preliminary surveys made for this purpose. The line, as finally located, included a portion of the earlier military survey.

[3] *Cf.* Nicolay and Hay, *Abraham Lincoln*, v., pp. 66-67.

and West had passed from Cincinnati to the new cities of the Mississippi and the Lakes,—St. Louis, Chicago, Cleveland, Toledo, and Indianapolis.

A no less critical situation was developing in the South. Years before a Southern railway had been urged as an advantageous outlet from the Ohio river to the southeastern seaboard. Such was the plan of the Cincinnati, Louisville and Charleston Railway, and the significance of the agitation of 1835-6. But now the situation had changed. Cincinnati reached the seaboard through New York, Philadelphia, and Baltimore, and sought southern territory for its own sake. Moreover, throughout the South, the river had definitely yielded to the railroad. Two large systems of railroads, embracing some 4000 miles, had grown up,—the one extending from the southeastern seaboard in a northwesterly direction, the other bearing from the southwestern Gulf cities toward the northeast, and converging with the former in eastern Tennessee. Louisville tapped this network by means of the Louisville and Nashville, and the Nashville and Chattanooga railroads at the precise juncture of the two branches, Chattanooga, Tennessee.

The only connection of Cincinnati with the South, aside from the all-water route, was by river to Louisville, thence *via* Nashville and Chattanooga by the Louisville and Nashville Railroad. As a means of transportation in competitive trade, it was both indirect and inadequate. Shipments to a distributing point due south from Cincinnati, as Chattanooga, described a wide circuit, going successively west, south, east, and north. The legitimate difference in freight charges, other things being equal, tended to swell the stream of Louisville trade at the expense of that of Cincinnati. The Louisville and Nashville Railroad was moreover, at that time, "a Louisville road," controlled by, and operated in the interests of Louisville merchants. Rail rates between Cincinnati and local points were made by adding the rate between Cincinnati and Louisville to the rate between Louisville and those points. Between Cincinnati and competitive

points, the rates were formed by adding an arbitrary charge between Cincinnati and Louisville to the rate from Louisville to such points.[1] The facilities of the road for shipments from Cincinnati to Southern points were entirely inadequate. Through freight was delayed in Louisville, and merchants still tell of pork destined for this section, unladen at Louisville and piled up for days outside of the city. For several years the Board of Trade of Cincinnati maintained a special agent at Louisville to trace out and hurry through Southern consignments.

The disadvantages thus indicated were emphasized by the radical changes in business methods which the economic revolution in the South had effected. Formerly the needs of a large portion of the population had been uniform and supplied by the planter, who purchased his stores in the larger Southern cities and retailed them to his body of dependents. Now, however, the negro bought for himself where and what he wished. General merchandise stores sprang up at every cross-road, and Southern merchants poured into Northern centers ready to buy for cash or on short time larger and more varied supplies.[2] The natural tendency was for these buyers to stop off at Louisville, rather than continue for 150 miles to Cincinnati, where any advantage gained in purchase would be lost in additional freight charge and delay in transmission.

By the spring of 1868, the construction of an independent Southern railroad had passed from a matter of general expediency to one of commercial necessity. The subject was under constant discussion in Cincinnati, and various projects of more or less impracticability were proposed. The bonus plan was revived by a proposition from the Atlantic and Great Western Railroad to acquire the Lexington and Danville Railroad and extend it in connection with the Kentucky Central to a Southern center, provided that a partial

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[1] *Internal Commerce of United States*, 1880, p. 90.

[2] See *Merchant's Magazine*, vol. lvi., 1869, p. 363.

guarantee fund would be subscribed. Like the earlier attempt, this proved unsuccessful. Attention was also given to "the Dickson plan," based upon the claim that, while the State constitution forbade a municipal gift or loan to "any stock company, corporation or association," there was nothing in it to prevent such action with respect to an individual who should engage to build the road. The doubtful validity of the interpretation, and at any rate the impossibility of securing such an "individual," were soon pointed out.

The situation, to summarize, was this: Cincinnati and Louisville were active competitors for Southern trade. This trade was definitely established upon the basis of railroad transportation. Cincinnati possessed no direct railroad to the South; Louisville did. The advantages enjoyed by the former city in the era of water transportation were now held by the latter. Southern merchants dealing directly with the North were diverted from Cincinnati by the closer proximity of Louisville. The advantages of commercial traveling were minimized by inadequate transportation facilities, unreasonable delays, and arbitrary freight charges upon Southern consignments shipped *via* Louisville. Louisville, in a word, threatened to displace Cincinnati as the chief distributing point of Northern manufactures to Southern consumers. Various unsuccessful attempts had been made to secure the construction of an independent Southern road. Serious obstacles stood in the way of unaided construction by private capital; on the other hand, a specific clause of the Ohio Constitution prevented municipal aid to private enterprises, the most feasible method of securing at least its projection.

In the winter of 1868, the remarkable proposition was first broached by Mr. Edward A. Ferguson, a skilled constitutional lawyer of Cincinnati, that, failing all other means, the city should itself construct the road. Mr. Ferguson had long felt the necessity of direct communication with the South and the improbability of private enterprise establishing it. Careful study of the constitutional limitation and related judicial decisions led him to believe that, while Cincinnati was

disqualified from lending aid to private enterprise, the city was not forbidden the exercise of independent activity. The circumstances of the inception of the idea, as told by Mr. Ferguson himself, are interesting:[1]

"In July, 1868, I had been preparing a brief for an argument in the Supreme Court, in the case of Hatch *vs.* The Cincinnati and Indiana Railroad Company, involving the title of the company to the canal-bed, which had been appropriated for railway purposes. After the preparation of that brief I took a short vacation and went to New York City. One Sunday evening, while there, a freight agent of one of the railroads came up to certain Cincinnati merchants to give them a hint that there was to be a change of rates and that they had better hurry their shipments. This led to a talk about railway facilities at Cincinnati and about the fact that Cincinnati was losing her business; that she was being cut off from the entire trade of the Northwest; that she formerly had a large trade in Iowa, but that was leaving, or had about left her; that the great want of the city was a railroad to establish an empire of trade, and that empire of trade was the South; that was the only place for Cincinnati trade. It was lamented that, under the constitution, the city, without co-operative capacity, could do nothing toward building the road. The brief of which I have spoken had led me to consider the legal and constitutional questions which were involved in this subject of the city's building the road,—not the question so much as the case bearing upon it. I said to the gentlemen: 'You are mistaken about the constitution of Ohio; it is not as you suppose. Under the present constitution Cincinnati can do what she could have done under the former constitution.' I instanced to them the fact that

[1] *Report of the Commission on the Affairs of the Trustees of the Cincinnati Southern Railway, the Management of their Trust and the Disbursement of Moneys entrusted to their Care.* Cincinnati, 1879. Testimony of Mr. E. A. Ferguson, pp. 99-100. Henceforth this report will be referred to simply as, *Report of Investigating Commission.*

while the city of Cincinnati could not own a share in the gas company, and it was not essential to her interest that she should, as she had a contract with the present gas company, who were able to furnish gas cheaper, probably, than she could make it herself, that the city could buy the gas works and become a gas manufacturer, and supply private consumers, and that the people had voted three millions of dollars for that purpose. In other words, the prohibition was against the city being a stockholder and not against accomplishing a public object out of her own means. I wound up by saying: 'I believe, when I get home, I will draw a little bill to see what can be done under the Democratic constitution.' The constitution had been spoken of as a Democratic constitution, and all the gentlemen present, I believe, were Republicans but myself. After I returned home in the fall of that year I was taken sick, and having leisure, I thought of this project, and sat down one day to see how I could draft a bill to meet the case. I roughly sketched the first section; when I had done that, I became satisfied that it could be done."

Some weeks elapsed before Mr. Ferguson prepared a satisfactory revision of the first draft of the bill. It was finally completed and given to the press on November 25, 1868. The measure was drawn in general terms, according to constitutional requirement, and entitled "An act relating to cities of the first class having a population exceeding one hundred and fifty thousand inhabitants." Cincinnati was, of course, the only city in the State whose population reached that number.

The measure provided that, whenever the City Council of Cincinnati should pass a resolution declaring it essential to the interests of the city that a railway be provided between two designated termini, one of which should be Cincinnati, and a majority of qualified electors should have decided at a special election in favor of the construction of the railway, then the Superior Court of the city should appoint a board of five trustees, holding office during good behavior, to carry

out the object of the resolution. The board of trustees so appointed were authorized to issue bonds of such an amount and kind as might be determined, to be secured by a mortgage on the line of railway and its net income, by the faith of the city and by a tax levied annually sufficient to pay the interest and provide a sinking fund for the final redemption of the bonds. This fund should be expended in the construction of a railway with all the usual appendages, between the specified termini. For this purpose the trustees should have power to make contracts, to employ officers and agents, to acquire necessary real and personal property and franchises, to receive donations of land, money or bonds, and to dispose of the same in aid of the fund. They should keep a record of their proceedings and a full and accurate account of their receipts and disbursements, and make an annual report of the same to the City Council and whenever requested by a resolution of the same body. Compensation should be proportioned to respective services and determined by the appointing court. The trustees should not be interested either directly or indirectly in any contract relating to the railway. Whenever the city solicitor or any bondholder should have reason to believe that a trustee had failed in the faithful performance of his duty, he should apply to the appointing court for the removal of the delinquent and the appointment of a successor. A vacancy occurring in the board from any other cause should be filled in like manner. The trustees were finally empowered to rent or lease portions of the line as soon as completed, such rights to terminate on the final completion of the railway, when it should be leased on terms and conditions to be determined by the City Council of Cincinnati.[1]

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[1] **For the full text of the measure in the form in which it subsequently became a law, see Appendix, A.**

III.

Legislation and Litigation.

The Ferguson bill was widely circulated and generally discussed. It was favored by the commercial bodies of the city and heartily commended by the local press. Intelligent sentiment recognized the very unusual character of the plan, but urged it as an heroic measure.[1] A more conservative element, to whom the proposition appeared a hazardous *dernier ressort*, presented an untried alternative plan,—an amendment to the ninth article of the constitution of Ohio, so as to enable Cincinnati to lend credit to private enterprise. The Knoxville Southern Railroad was at that time contemplating a northern extension, and a liberal municipal subscription would, it was thought, secure for Cincinnati this outlet. A carefully prepared amendment was presented to the Ohio legislature immediately after that body convened in 1869, but failed of passage.

The failure of this final substitute strengthened sentiment in favor of the Ferguson plan. Formal resolutions of endorsement were adopted by the City Council, the Board of Trade, and the Chamber of Commerce. Doubt raised as to the constitutionality of the measure was allayed by eminent

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[1] "We are aware that many persons think city gas works, water works, and all other improvements can be more economically managed by individuals or by stock companies than by municipal or State authority, and we see no reason to doubt this is the case; but when it comes to be a matter of life or death, where our future prosperity or decay is in such scales, then extreme cases need extreme remedies; and as a skilful physician might prescribe croton oil to a patient who without its use seemed to be on the very point of death, so may we let our city authorities build and operate a Southern railway for the benefit of our citizens."—*Cincinnati Daily Times*, November 28, 1868.

legal opinion. Hon. Thomas M. Cooley, the distinguished jurist and legal authority, wrote that while the constitution of Ohio forbade cities giving aid to works of public improvement, there was nothing in it to prevent local authorities from levying taxes for the construction of a railroad, when their own agencies were employed for the purpose. Such action would be in entire harmony with the established principle and usages of local self-government. Nor did the fact that this particular railroad extended beyond Ohio vitiate the rule. The local importance of a road depends upon the local facilities it affords to travel and commerce, and not upon the question whether it is entirely within the State or not.[1]

In April, 1869, the Ferguson bill, with a memorial urging its passage, was presented to the General Assembly of Ohio by a joint committee of the City Council, the Board of Trade, and the Chamber of Commerce. It was introduced in the Senate and referred to the Committee on Judiciary. Conferences with friends of the measure led to the insertion of ten million dollars as the amount of the loan and 7 3-10 per cent. as the maximum rate of interest. A clause was added, significant in the later history of the railway, prohibiting the sale of bonds at less than par. The trustees were required to enter into bond in such sum as the appointing court might direct, and a taxpayer was given co-ordinate right with a bondholder of applying for the removal of an inefficient trustee.[2] On April 28 the bill, as thus amended, was adopted in the Senate by a vote of 23 yeas to 7 nays. It encountered no difficulty in the House, passing by a vote of 73 to 21, and on May 4, the measure became a law.

The Ferguson bill was merely an enabling act, operative upon, first, the passage by the City Council of a formal resolution, declaring the construction of the railway necessary, and designating the terminal points; secondly, upon the subsequent ratification of this resolution by popular vote.

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[1] For the full text of Judge Cooley's letter, *v.* Appendix, B.

[2] Ohio Senate Journal, 1869, p. 622.

A special committee of the City Council was immediately appointed to select a southern terminus. The respective advantages of Atlanta, Georgia, and Knoxville and Chattanooga, Tennessee, were discussed, the last-named city being, after mature deliberation, selected. On June 4 a resolution was passed, reciting the powers conferred by the Ferguson Act, and declaring it "essential to the interests of the said city of Cincinnati that a line of railway, to be named the Cincinnati Southern Railway, should be provided between the said city of Cincinnati and the city of Chattanooga." A special election was held on June 26, 1869, at which 15,435 votes were cast "for providing said line of railway," and but 1500 "against." This unanimity of sentiment stimulated subsequent proceedings. Four days later, the Superior Court of Cincinnati, upon petition of the City Solicitor, appointed a Board of Trustees, consisting of Edward A. Ferguson, the author of the act, Richard M. Bishop, ex-mayor of Cincinnati and later governor of Ohio, Miles Greenwood, William Hooper, and Philip Heidelbach,—the last three public-spirited citizens of means and influence, representing in a general way, the manufacturing, commercial and financial interests of the city. The Board was in no sense a technical body; indeed, no one of its members had, prior to his appointment, any practical experience in railroad construction. The theory of selection, in so far as theory operated, was that the variety of duties devolving upon the trust,—including the passage of complex legislation and the negotiation of large bond issues,—made it impossible to appoint a body composed exclusively of skilled engineers; that, on the other hand, the influence of but a single person of this kind upon unskilled associates would be predominant and ultimate to an undesirable degree. Accordingly, men of sterling integrity and large public spirit, enjoying unlimited public confidence, rather than experts in railroad construction, were selected for the execution of the work. The correctness or error of this policy will be discussed in another place. It is here sufficient to repeat that the composition of the Board of Trustees was, in so far, conscious and deliberate.

Before attempting the negotiation of the loan and the inauguration of actual construction, the Trustees prepared to secure enabling acts in Kentucky and Tennessee. To hasten work thereafter, an engineering department was organized, and in August, 1869, two surveying parties were placed in the field for the purpose of conducting preliminary surveys. The problem of location was unusual in the wide latitude allowed by the absence of intermediate points,—the termini Cincinnati and Chattanooga being alone fixed,—and in the willingness of the Trustees to expend any reasonable amount of time and money to secure absolutely the best route. Directness of line was the prime consideration, subject, however, to such modifications as the topography of the country and the inducements offered by counties and landowners along the route might render desirable. Funds sufficient to meet current expenses were secured by temporary loans made with the consent of the City Council from the city treasury. The validity of this practice was affirmed in March, 1870, by a supplementary act of the General Assembly of Ohio, authorizing the City Council to advance a sum not exceeding $50,000 to the Trustees, to be repaid upon the negotiation of the construction loan.[1]

Little opposition was anticipated to the grant of right of way in Kentucky and Tennessee. Whatever rivalry or unfriendliness might exist in Kentucky was hardly expected to develop in the mere legislative franchise. Tennessee was known to be strongly in favor of the road. The importance of a northern outlet for the eastern section of the State had long been recognized, and in 1866 an attempt had been made to secure a northern connection by the incorporation in Chattanooga of the Cincinnati and Chattanooga Railway. After a preliminary survey to Emory Gap, the construction of the Cincinnati Southern was broached, and this project was abandoned.

The General Assembly of Tennessee convened in the

[1] 67 Ohio Laws, p. 28.

autumn of 1869, and a bill granting right of way to the Cincinnati Southern Railway was at once introduced. It authorized the Board of Trustees to enter, survey, and acquire by gift, purchase or condemnation, land or portions of constructed railways, in such amount as might be necessary for the construction and maintenance of the Railway. Counties and towns along the route were empowered, upon a majority vote of the qualified electors, to donate lands or moneys in aid of the construction of the road, to an amount not exceeding five per cent. of the taxable property. The Trustees of the road were required to locate it within two years after the passage of the act and to complete it within five. The governor of the State might extend this latter period to ten years. The maximum transportation charges were fixed at thirty-five cents per 100 lbs. and ten cents per cubic foot for freight, and five cents per mile for passengers. No discrimination should be made against the citizens of Tennessee, and the legislature reserved the right to enforce these provisions by all necessary legislation. Bondholders were secured by a statutory mortgage on the road and its net income, and failure to comply with any terms of the grant involved its forfeiture. A committee of Trustees remained in Nashville while the bill was under consideration, explaining its provisions and pointing out the local advantages to be derived from the road. The measure was strongly supported by popular sentiment, and with some slight additions became a law on January 20, 1870.

On January 7, 1870, a similar bill and memorial had been introduced into the General Assembly of Kentucky and referred to the committee on railroads in Senate and House. It immediately encountered strong opposition. Not only were sectional jealousy and local pride reluctant to grant so unusual a privilege to a city of another State, but rival interests, corporate and municipal, brought powerful influences to bear in opposition.[1] Various modifications failed to

[1] *Report of Investigating Commission*, pp. 193-194.

weaken hostility, and on March 1, 1870, the measure was defeated in the Senate, and four days later in the House. The influences that had operated were so apparent that the Board of Trustees at once prepared to renew the struggle by carrying the measure before the people of Kentucky, and making the grant of right of way a formal issue in the next legislative election. Agents were appointed in different sections of the State, and a general convention was held in the interests of the Railway at Lexington in October, 1870. Delegates were here present from many of the counties of Kentucky, as well as from Tennessee, Alabama, and Georgia. The immediate and indirect influences of the Railway were discussed in detail, and a committee appointed to arrange for public meetings throughout the State in behalf of the proposed grant. The work of agitation was actively carried on during the entire winter.

The defeat of the Kentucky bill exerted its most important influence in Cincinnati. It was the first repulse the project had thus far received, and awoke conservative taxpayers to an alarmed consciousness of the magnitude of the undertaking and the serious difficulties involved. In April, 1871, an injunction was taken out by the City Solicitor of Cincinnati, restraining the City Auditor from paying over unpaid portions of the loan of $50,000 advanced by the City Council for the immediate use of the Trustees. The petition averred that both the original and supplementary statutes were unconstitutional, and that the advance of money was a misapplication of corporate funds and in contravention of the laws governing the same. A demurrer to the petition was filed by the Mayor and City Auditor and the Board of Trustees jointly. The questions thus arising were reserved by the Superior Court of Cincinnati, and adjourned for adjudication in general term.

On January 4, 1871, the Superior Court, having had the case under advisement for several months, pronounced the Ferguson act and the supplementary measure of March, 1870, constitutional and valid, and dismissed the injunction

proceedings. The opinion,[1] rendered by Judge Taft, with the concurrence of other members of the court, after reviewing the history of the case, declared that, independent of constitutional limitations, the construction of a railroad serving public interests is a proper purpose of municipal taxation. This had been repeatedly affirmed and enjoined by the courts of Ohio before 1851. If it were not so, the restricting clause of the State constitution adopted in that year would have been unnecessary. Not only could the General Assembly up to that time authorize a city to lend money or credit to a private corporation in order that it might build a needed railway, but it might empower the city to build the road directly, in which case the application of the public fund was not left dependent upon the good faith and discretion of a private corporation. The restricting clause of the new constitution plainly cut off the power of the legislature to authorize a city to do the first of these things. It did not, however, prevent a city, when empowered, from engaging in such work directly. A similar limitation had been placed by an earlier article of the same section upon the activity of the State; but the bare restriction against loaning money or credit to private companies had not prevented the State from accomplishing directly "any purpose whatever." Its power in this direction, that is, of making public improvements without the agency of a corporation, continued exactly as it had been before 1851. "We feel bound," the opinion continues, "to give a like construction to the sixth section (Article VIII.), which applies to cities. They cannot be authorized now, as formerly, to lend their funds or their credit to, or become members of, trading corporations, for any purpose whatever. But they can be authorized to expend their own funds in making necessary public improvements in the same manner and to the same extent as before the adoption of our present constitution." The fact that the proposed road was to extend beyond the city did not vitiate its character as a municipal

[1] **Walker *vs.* City of Cincinnati, 1 Cin. Sup. Ct. Rep. 121.**

work. In subscribing to the stock of railroads reaching into other States, and in erecting public works, such as an infirmary and workhouse in Hamilton county, Cincinnati had repeatedly exercised authority beyond corporate limits. Public expediency, and not municipal confines, must determine whether a particular function is within the scope of municipal taxation. Finally, while the constitutionality of the acts appeared clear of doubt, even were it otherwise, the presumption must always be in favor of the validity of the laws enacted by the State legislature, if the contrary is not demonstrated.

Fortified by this judicial victory, the Board of Trustees proceeded to renew the struggle for necessary legislation in Kentucky. During the winter months of 1870, the State had been canvassed from end to end in the interest of the project. Public meetings had been held in many of the counties, and the favorable influence of the Railway upon the development of the resources of the State emphasized. It had been shown that all the coal used in central Kentucky was floated down the Ohio river from Pennsylvania and Ohio to Covington, and then sent by rail throughout the State, and that citizens of eastern counties were thus obliged to pay from thirty to fifty cents per bushel for fuel, while great fields lay untouched within a few hours' ride. Similarly the stock-raisers of Kentucky could only reach the South indirectly *via* Nashville, and suffered heavy loss from the longer confinement of cattle which this made necessary. Most of the meetings so held terminated in the passage of resolutions instructing local representatives in the legislative bodies at Frankfort to vote in favor of the grant of right of way.

Immediately after the Kentucky legislature assembled in 1871, a second measure, known as "the McKee bill," embodying the provisions of the previous grant, with certain minor modifications, was introduced. The measure at once became an object of contest, and the scenes of the previous year were re-enacted. Representatives from Louisville and adjacent counties, and a well-equipped lobby, bitterly opposed

the bill, while representatives of the Board of Trustees and influential citizens of Cincinnati busied themselves in its behalf.[1] After a legislative battle of two weeks, the bill was narrowly lost in the House by a vote of 44 to 43, and some time later in the Senate.

Local interests and sectional jealousy had now twice defeated a grant of right of way through Kentucky. Sentiment rapidly developed in favor of seeking relief by federal legislation. In anticipation of a general law regulating the construction and dimensions of bridges across the Ohio river, a special bill had already been introduced in both bodies of Congress, authorizing the construction of a bridge according to the special plans of the Trustees. A more comprehensive measure, providing for right of way through Kentucky and Tennessee, as well as the construction of the Ohio bridge, was prepared by Mr. Ferguson, and introduced in the U. S. Senate and House of Representatives in February, 1871, the last month of the congressional session. A delegation of the Trustees proceeded to Washington and testified in its behalf before the committees of both bodies. The measure was reported favorably in the House and passed by a two-thirds vote. In the Senate it failed for want of time.

The outlook was now eminently discouraging. Every alternate means had been unsuccessfully tried, and nothing remained but to persist in the original endeavor. The funds in possession of the Trustees were about exhausted. An appeal in error had been taken from the decision of Judge Taft, and was then pending in the Supreme Court of Ohio. To attempt to negotiate the bonds when their validity was gravely questioned was impossible. The surveying parties that had left Cincinnati in the fall of 1869 reached Chattanooga in March, 1871, after eighteen months of continuous field service, and were ordered to sell the field equipment and disband, only a small force being retained to work up the surveys. A large number of lines had been run and a

[1] *Report of Investigating Commission*, p. 64.

thorough exploration made of a region widening out from Cincinnati to a distance of 70 miles at the Kentucky-Tennessee State line, thence converging gradually to Chattanooga. The belt of country thus enclosed formed an area equivalent to about one-third of the State of Kentucky. No route had now been considered outside this limit, as involving by excessive divergence from an air-line too great a sacrifice of directness.

In December, 1871, Chief Justice Scott, of the Supreme Court of Ohio, with the concurrence of his associates, sustained the judgment of the lower court upon the validity of the Ferguson and supplementary acts.[1] The general principles of the former decision were reaffirmed, with renewed emphasis upon the entire competence of the Legislature to authorize under the present constitution the municipal construction of public works. "The restricting clause of the constitution interdicts a business partnership between a municipality or a subdivision of the State and an individual or private corporation. It forbids the union of public and private capital or credit in any enterprise whatsoever. If it meant more than this, it would follow that municipal bodies are powerless to make any improvement, however necessary, with their own means and on their own sole account." It is the corporate interest of the municipality and not the location of the road which determines the right of taxation. Finally, the authority and duty to prevent an abuse of powers of taxation and assessment by municipal corporations is entrusted by the constitution to the General Assembly and not to the courts of the State. The power of the legislature to authorize local taxation cannot be judicially denied, unless on the ground that the purpose for which it is exercised is not local, and the absence of all special local interest is clearly apparent.

This opinion definitely established the constitutionality of the Ferguson act and the validity of the bonds therein

[1] **Walker *vs.* City of Cincinnati, 21 Ohio St. 14.**

authorized. It removed the most reasonable ground of opposition to the measure, its alleged unconstitutionality.

During the summer and autumn of 1871, the Kentucky representatives of the Trustees maintained an active canvass in the interest of the road in sections where hostility was most pronounced. The Kentucky legislature reconvened in December, 1872, and the enabling measure was again introduced. Upon the advice of Kentucky friends of the Railway, the passage of the bill was left ostensibly to their care, the Trustees keeping advised by telegraph and correspondence of the exact situation. For several weeks the issue hung in doubt. Finally, on February 13, 1872, after "the most determined and positive opposition that was ever inaugurated against any bill before any legislature," a partial compromise was effected, various prejudicial amendments were inserted, and the bill passed. The general tone of the measure, in the form in which it became a law, was scant and grudging. Right of way was given, but laden with burdensome conditions. The Trustees were required to survey a specified route *via* Nicholasville and Danville, thence through Sparta, Tenn., to Chattanooga, and to submit it with other lines surveyed to popular selection in Cincinnati,—the road being located as thus determined. They were further obliged to pay into the State treasury of Kentucky, in addition to ordinary taxation, the sum of fifty cents for every passenger crossing the State and twenty-five cents for every person traveling a hundred miles within it; also one cent on every hundred pounds of through freight.

The construction of the Railway under such conditions seemed impossible. In Cincinnati, the amendment or repeal of the Ferguson act was accordingly urged, in connection with a substitute plan of purchasing the Kentucky Central Railroad for three million dollars and transferring it as a *quasi*-bonus to a syndicate of railroad capitalists, who should in return extend the line to some Southern center. A bill to this effect was actually introduced in the Ohio legislature, but through the vigorous opposition of the commercial bodies of

Cincinnati and the likelihood of the repeal of the odious provisions of the Kentucky grant, it failed of passage. The first two of the prohibitive clauses were repealed by a supplementary act in the following session of the Kentucky legislature; the third not until February 4, 1873. The measure was then accepted by the Trustees, and the "Ohio river bridge act" having already become a law, all necessary enabling legislation had now been secured.

The results obtained by the surveying parties in 1869 and 1870 were worked up during the following winter and submitted to the Trustees in an exhaustive report in March, 1873. The general character of the region to be penetrated has already been referred to as one of the chief causes of the failure of private enterprise to construct the road. It was highly unfavorable to railroad construction,—wild, unsettled, difficult of accesss, of extremely irregular geological formation, intersected by a wide mountainous region, and cut by three great rivers and numerous smaller streams. The absence of intermediate points, and the liberal attitude of the Trustees, led the surveying parties to examine a much larger extent of territory than is usual in railroad construction.[1] Three main routes, with some twenty-six variations, were presented. The stem lines were the "Eastern," the "Central" or "Military," and the "Sparta" or "Western." The "Sparta" route had only been surveyed because of the proviso in the Kentucky act. It was never seriously contemplated. The "Eastern" route, through Richmond, London, Williamsburg, and Emory Junction, penetrated a smoother country and involved easier grades and less tunneling. It had the disadvantage of greater length, and was ultimately abandoned for the "Military" route *via* Nicholasville, Somerset, Point Burnside, and Emory Junction. The three lines converged in the neighborhood of Lexington,

[1] It has been said that the location of no other railway in the country has been preceded by such elaborate and varied preliminary surveys. The work consumed more than two years of time, and cost $183,969.86. See *Report of Investigating Commission*, p. 8.

where a choice was presented between the purchase of the Kentucky Central Railroad and the acquisition of an easement over the Newport Bridge across the Ohio river, or of the construction of a direct line and an independent bridge.

IV.

The Construction of the Railway.

Four years had now elapsed since the passage of the Ferguson act. Necessary legislation had been secured in three State legislatures and in Congress. Extensive preliminary surveys had been made and the route of the Railway practically determined. Not a spade of earth had, however, been turned in actual construction. The results of this unexpected delay in commencing operations were most unfortunate. The negotiation of the construction bonds was delayed from a period favorable to financial operations to one highly unfavorable. Subscriptions and gifts of land promised by counties and property-owners along the route were withdrawn as the likelihood of early completion vanished, and right of way through Kentucky and Tennessee, which, it had been originally expected, would cost little or nothing, had to be acquired largely by purchase or condemnation.[1]

As it became apparent that the completion of the Railway would be delayed long beyond the period anticipated, and that its ultimate cost would in all likelihood exceed the amount of the original loan, the popular uneasiness which had lingered in Cincinnati crystallized into a general desire that the city should be released in so far as was possible from the burden of construction, or at least secured against further increase of municipal indebtedness. The Board of Trustees accordingly modified their original plan of constructing the Railway in entirety by the award of detailed contracts, and proceeded merely to acquire full right of way, to construct the

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[1] The amount actually expended for this purpose was about $650,000. The donations received aggregated some $50,000 in money and 3000 acres of land, estimated as worth $350,000 additional.—*Report of Investigating Commission*, pp. 25-27, 53, 87, 189.

road-bed proper, and to provide necessary terminal facilities. Further completion was then to be secured as part consideration of the grant of an operating lease for a term of years to a private corporation. This was the "completing and leasing" theory which figures so prominently in the further history of the Railway. In the possible absence of sufficient authority in the Ferguson act to make a single contract to complete and lease, a second supplementary act was passed by the Ohio legislature in April, 1873, investing the Trustees with power "to contract for completing and leasing the whole line of railway for which they are trustees." It also granted to bondholders the statutory mortgage lien upon the Railway already conferred by the Tennessee and Kentucky acts.[1] On Aug. 30th, 1873, the route was definitely located on the "Military" survey,—from the Kentucky-Tennessee State line eighty miles north to a point in central Kentucky about one mile west of South Danville,—and provisionally continued down Emory river to White's Junction, along Walden's Ridge to Boyce, from where Chattanooga, five miles distant, could be reached over the tracks of the Western and Atlantic Railroad. Negotiations were at the same time begun for the purchase of the Kentucky Central Railroad and the occupation of the Newport Bridge.

The financial crash of September, 1873, and the prostration which succeeded it, made practically impossible the completion and disposition of so immense a work by a single contract. Large numbers of railroad capitalists were ruined, and confidence in railroad construction so shaken, as to necessitate the abandonment in turn of the "completing and leasing" project, and return to the original plan of detailed construction as the only possible method of procedure. In the general despondency which followed the crisis, the proposition of so continuing met with little favor. The Trustees were publicly advised to abandon the entire work, and strong private influences were brought to bear upon the author of

[1] 70 Ohio Laws, p. 189.

the plan to induce him to drop it. To add to the embarrassment of the moment, the Kentucky act required that actual construction be inaugurated before February, 1874, and unless the entire work was to be abandoned, it became necessary to begin operations at once,—in spite of the fact that the Trustees had no money whatever at their disposal.

After mature deliberation, the Trustees definitely decided to proceed with the construction of the Railway. Further action was prompt and vigorous. A careful review of all surveys resulted in the final location of the line already provisionally selected, extending from the Kentucky-Tennessee State line south. A tunnel, three-fourths of a mile in length, through King's Mountain was chosen for the initiation of the work. No public funds being available for the purchase of the entrances of the tunnel, four of the Trustees secured $5000 on their personal credit, and on December 12, 1873, the first contract for excavation was awarded. Several months' negotiation having failed to effect satisfactory arrangements with the stockholders of the Kentucky Central Railroad and with the various railroads having an interest in the Newport Bridge and its approaches, the Trustees decided upon independent construction from Lexington to Cincinnati. This final location of the Railway was determined on February 12, 1874, one day before the expiration of the two years granted by the Kentucky act for the declaration of the entire route of the road.

During the three years following the passage of the Ferguson act, while the struggle for enabling legislation was in progress, no steps had been taken by the Trustees towards the negotiation of the construction bonds. Current expenses had been met by funds advanced from out the city treasury and later by the personal credit of the Trustees. In July, 1872, after the passage of the Kentucky act, a block of long-term bonds had been disposed of, but merely in sufficient amount to repay the advances made by the City Council. In the fall of the same year, a member of the Board of Trustees visited Europe and was authorized to consult foreign capitalists with

a view to further negotiations. He found the restriction of the bonds to sale at par a grave obstacle to their acceptance. The high rate of interest was considered evidence against the credit of the city, while the recent defalcation of some American railroads in interest payments operated strongly against all railroad securities, and in particular against those of so unusual a character. The spring of 1873 arrived without anything having been accomplished. Efforts were now directed to the American market. At the request of a syndicate of New York capitalists, the Trustees visited that city and conferred with representatives of the syndicate. A number of propositions were made, to the general effect of taking the entire loan at par with interest at 7 per cent. payable in gold. With gold at a premium, and the money market in a highly unsettled state, the Trustees naturally rejected the proposition, although, as the financial history of the period resulted, the terms offered were more favorable than those accepted several years later.

The panic of 1873 shattered for the time all confidence in railroad credit and forced the Trustees to again attempt placing the loan abroad. As before, however, the restriction to sale at par rendered the bonds unpopular, while the high rate of interest made capitalists wary. The recent reversal by the United States Supreme Court of the "legal tender decision" was cited as illustrative of the inconsistency of American adjudication, and renewed doubt was expressed as to the validity of the Ferguson act, despite the decisions of the Ohio courts. Finally negotiations promising successful results were broken off by anonymous letters and newspaper attacks sent by local opponents of the Railway to leading English banking houses.[1] This triple failure of negotiations and the imperative necessity for funds to proceed with the work, induced the Trustees to raise the rate of interest of the bonds from 7 per cent. to 7 3-10 per cent., and to make a second trial of the American market. After prolonged nego-

[1] *Report of Investigating Commission*, p. 77.

tiations, embarrassed by the general prejudice against the municipal construction of the road, the uncertain prospects of its completion, and doubt as to the legal status of the loan, $1,000,000 of bonds were marketed in May, 1874, through the American Exchange National Bank of New York, at par less one per cent. commission. Five months later, the remainder of the loan was taken through the same agency at par with time options and one and a half per cent. commission. Not until May, 1875, was the entire loan taken up and paid for. The commissions allowed for negotiation practically operated as a discount. The proceeds of the $10,000,000 loan thus aggregated $9,858,198.29.[1]

Immediately after the final location of the route in February, 1874, an efficient engineering department had been organized and active steps taken towards the award of contracts and the prosecution of the work. An engineer of distinguished reputation and wide experience was appointed consulting and principal engineer and placed in general charge of the work. He was vested with wide discretionary power, but was directly responsible to the Trustees, who exercised careful and, in so far as possible, detailed supervision over the work. The engineering department was organized into a department of surveys under a first-assistant field engineer, charged with the location of the route, right of way, and land grants; a department of construction, under a first-assistant office engineer, supervising the actual construction of the road by means of a system of division and resident engineers; and an operating department, organized later, in charge of completed portions of the road either constructed or purchased. Division and resident engineers were required to make detailed examination of the topographical and geological character of their assignments and a precise location of the route of the road. Profiles and detailed records of the necessary amounts of grading, clearing, embankment, bridging, and tunneling were sent to the Cincin-

[1] *Report of Investigating Commission*, p. 219.

nati office, and used as data in the award of work. The method adopted in the award of contracts was that ordinarily employed in railroad construction. Each division was divided into forty sections, proposals for one or more of which were invited according to the nature of construction. Bidders were provided with the estimated quantities and classifications shown in the profile reports of the engineers, and bids were submitted for the performance of various classes of work at different rates. Awards were made by the Trustees upon the basis of the engineers' reports, ordinarily to the lowest aggregate bidder, but in cases where special reasons rendered this undesirable, according to the recommendation of the consulting engineer. Plans of great detail and minuteness were furnished contractors from the central office, in order to secure uniformity of design and construction in the entire Railway. Work was required to be done in strict conformity with these specifications, and was prosecuted under the immediate supervision of the resident and division engineers. The consulting engineer was the final inspector and umpire in regard to the character and value of all construction and of all disputed questions.

During February, March, and April, 1874, thirty contracts were awarded for the grading, tunneling and bridging of some one hundred and fifty sections. By the autumn of the same year, work on the preparation of the entire road-bed in the difficult region of southern Kentucky and northern Tennessee was well under way. In the early part of 1875, contracts were concluded for an iron truss bridge across the Ohio with an incline approach, for the remainder of the grading and masonry from Cincinnati to Lexington, and somewhat later for the structures of the bridges, viaducts, trestles, depots and freight stations, and for the supply of ties and steel rails in the same sections.

In the award of all contracts, the Trustees reserved the right, in the event of the financial embarrassment or unreasonable delay of contractors, to step in and carry on the work directly. Their ample resources and the industrial

depression of the period caused active competition for awards or re-awards, and ordinarily saved the Trustees from more than supervising and modifying the details of construction. Peculiar circumstances in one case, however, led them to engage for several months in direct construction. The first contract awarded was for one of the most difficult and important pieces of work on the road,—a tunnel, three-quarters of a mile in length, through King's Mountain. The first award of this was made on December 12, 1873. In November, 1874, the contractors became financially embarrassed and were forced to make an assignment, leaving the work in a highly critical state, with a crowd of creditors threatening to institute legal proceedings. Under these circumstances, any re-award of the work would have involved tedious and expensive litigation, delaying its prosecution for several months. To prevent this, as well as the dispersion of the large force of men at work on the tunnel, the Trustees proceeded to take direct charge of the excavation. Tools, machines, implements and live stock were rented from the assignees, and the work actively continued. As in many other sections of the road, the unsettled character of the country had obliged the contractors to maintain a general supply store. The management of this was also assumed by the Trustees. Supplies were purchased by the president of the Board, through personal advantages, at actually less than the price paid by the contractors. After three months of successful operation, a settlement was effected with the creditors of the bankrupt contractor, the suits to which the Trustees were made parties were withdrawn, and the work promptly re-let. No period of the entire activity of the trust is more creditable than this brief season of direct construction.

By May, 1875, the amount actually expended in construction was $3,539,782.10, which together with the outstanding liabilities, $5,953,009.75, practically exhausted the ten million dollars loan. The legality of any further increase of liabilities on the part of the Trustees now came under consideration. A

majority of the Board decided that suspension of construction in the critical condition of the work would involve serious loss if not positive disaster, and that the statutory obligation to construct the Railway might justify a temporary excess of the amount of the original loan. Work was accordingly continued, steps being taken to secure an early supplementary loan.[1]

It will be remembered that the Trustees' original plan of detailed construction had been changed in the autumn of 1873, by a pressure of public sentiment, to that of constructing only a certain portion of the Railway, and then securing its completion and operation by a single contract to a private corporation; that this plan had been in turn prevented by the financial crash of 1873, which wiped out all confidence in railroad investment and obliged the Trustees to again revert to detailed construction. A "completing and leasing" contract had, however, remained the anticipated policy of the Board, and upon the exhaustion of funds in May, 1875, the steps taken to secure additional resources were with this in view. One hundred and fifty miles of the road-bed had been finally completed, and work on ninety-seven miles of the remainder was then in progress. The estimate of the consulting engineer represented $6,000,000 additional as the sum necessary to complete the road-bed.[2] In conjunction with a contract of the kind proposed, this would insure the early operation of the road. In January, 1876, a bill supplementary to the Ferguson act was introduced into the Ohio legislature, authorizing the Board of Trustees to issue bonds for an additional sum not to exceed $6,000,000, and to contract for the completion and lease of the road after its partial construction and before its final completion. At the same time, a bill in general terms was introduced, authorizing the incorporation of a common carrier company for this specific

[1] *Report of Investigating Commission*, p. 95.

[2] Thomas D. Lovett, *Report on the Progress of Work*, November 1, 1875, p. 58.

purpose. The supplementary bill passed the Ohio legislature, but in so amended a form as to empower the Trustees to lease the road only six months *after* its entire completion, thus practically prohibiting the particular contract desired.[1] The insertion of this amendment was one of the most unfortunate episodes in the history of the Railway. It compelled a radical change in the policy of the Trustees, without providing the additional means for effecting it. The $6,000,000 loan which the act authorized was sufficient to finish the road only in conjunction with a "completing and leasing" contract. The amendment obliged the Trustees to undertake the detailed construction of the permanent way of the road, superstructure and equipment, with funds merely sufficient, as careful estimates had shown, to complete the substructure. As a result, the Trustees were forced two years later to demand an additional loan of two million dollars, and while in 1876 eight millions would probably have been as freely given as six, the unfriendliness meanwhile developed against the undertaking by the slow progress of the work, together with doubt as to the sufficiency of the new loan, defeated the purpose of one enabling act, and by bitterly contested litigation retarded a second. It occasioned a critical delay in the completion of the Railway, and not only thus indirectly affected the financial interests of the city, but materially increased the ultimate cost of the work.

The $6,000,000 loan received popular endorsement in March, 1876, and was negotiated with much less difficulty and upon more favorable terms than the first loan, the total amount realized being $6,013,517.50. Efforts were now concentrated upon the early completion of the railway from Cincinnati to Somerset. Contracts were awarded in these divisions for unfinished grading and masonry, the superstructure of bridges and viaducts, track supplies, water and fuel stations, passenger and freight depots. Work proceeded with-

[1] *Report of Investigating Commission*, p. 110. For text of the act, 73 Ohio Laws, p. 13.

out interruption, and in April, 1877, after unexpected delays due to river floods and the violence of the winter, the bridge across the Kentucky river, at that time the highest bridge in the world, and still remarkable for its great elevation and boldness of construction, was finished and successfully tested, thus completing the Railway for one hundred and fifty-eight miles. The desirability of a "completing and leasing" contract which would relieve the city from all further responsibility and at once open the road for local operation became now more than ever apparent. The common carrier act, authorizing the organization of private capital for this purpose, had already become a law, and on April 24, 1877, the Ohio legislature repealed the prohibitory clause of the "six million act," and by a fifth supplementary act authorized the Board of Trustees to contract for completing and leasing the whole line of railway, "after its partial construction, and before its final completion."[1] No local corporation being prepared to enter into such an arrangement, a public meeting of citizens of Cincinnati was held on April 30, 1877, and an organization effected, under the provisions of the common carrier act, as the Cincinnati Southern Railway Company. Subscription books were opened a few weeks later and the greater part of the stock taken by local capitalists.

In the conferences and correspondence with the Board of Trustees which followed, in reference to the terms of the proposed contract, attention was called to the fact that the original ten million loan was secured by a mortgage lien upon the entire Railway. The announcement of this clause, which, strangely enough, had been overlooked by the incorporators, changed the entire situation. The objection was raised that the lien would either entirely prevent all further advance of capital for the completion of the Railway, or at least greatly embarrass the operations of the lessees.[2]

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[1] 74 Ohio Laws, p. 115.

[2] *First Annual Report of Cincinnati Southern Railway Company*, 1877-78, p. 9.

The dissatisfaction among stockholders became so marked that a general option of release from subscription was offered, with the result of a decided shrinkage in capital and a necessary modification of the contemplated "completing and leasing" contract to a mere operating license. On July 3, 1877, the Railway was leased on a determinable license to the Cincinnati Southern Railway Company for local operation between Cincinnati and Somerset. The licensees agreed to furnish sufficient equipment to operate the road and to accommodate all traffic, while the Trustees covenanted to maintain it in order and to allow the operating company out of its net earnings, ten per centum on the paid-up cash capital and ten per centum on the balance of the net earnings. Freight and passenger tariffs were to be fixed by joint agreement between the Trustees and the company, and the Trustees were protected against any damage arising from the operation of the road. The Railway was opened for traffic on July 23, 1877, and the first regular passenger train sent from each end three weeks later.

The operating license was granted as a merely temporary arrangement. It was believed that in a short time the company would be able to enlarge its capital and take a permanent contract to complete and lease. Under ordinary circumstances, this would probably have been the case. As it was, the great railway strike came in August, 1877, and public confidence in railroad investments, which for the first time since the crisis of 1873 had fairly re-established itself, was again shattered, and any extension of the lease, with the road in its present state, made impossible.[1] Ludlow continued as the northern terminus of the road until December, 1877, when as the result of eight different contracts, and at a total cost of of $802,171.26, the bridge across the Ohio was so far completed as to allow the passage of trains. The license of the operating company was then extended so as to include the bridge and its approaches.

[1] *Report of Investigating Commission*, p. 110.

On December 1, 1877, the total amount expended by the Trustees in construction and maintenance, together with outstanding liabilities, aggregated $15,997,784.57, thus again exhausting the funds available. The Railway was at this time in actual operation between Cincinnati and Somerset. South of Somerset, all grading and masonry had been completed to within five miles of Ghattanooga, where juncture was effected with the tracks of the Western and Atlantic Railroad. The superstructure of all bridges and viaducts had been built and supplies secured for the construction of the track. The work of completion embraced the complete repair of the road-bed and masonry, the construction of the superstructure of viaducts and bridges, the laying and ballasting of the main track, sidings, and the erection of all buildings necessary for the opening of through traffic between Cincinnati and Chattanooga. Careful estimates gave three and a quarter millions as the amount necessary for the independent completion of the work, considerably less in conjunction with a completing and operating lease.[1] The latter estimate was adopted by the Trustees, and in April, 1878, the Ohio legislature passed the sixth supplementary or "first two million" act, authorizing the issue of bonds to this amount, subject to the usual ratification of qualified electors. No part of the proceeds should be applied to the portion of the road already in operation prior to the completion of the whole, and no sum exceeding $50,000 should be expended for the purchase, or more than $6000 per annum for the rental of terminal facilities. The aggregate compensation of the Trustees was limited to $5000 per annum, and the approval of the Trustees of the Sinking Fund was required for the temporary lease of completed portions of the road and for the ultimate disposition of the whole. The discretion of the Trustees was further restricted by conditioning the use of public streets and grounds upon the consent of the Board of Public Works.[2]

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[1] G. Bouscaren, *Report on the Progress of Work*, December 1, 1877, p. 20.

[2] 75 Ohio Laws, p. 115.

The difficulties encountered in the passage of the act, the restrictions imposed upon the hitherto absolute discretion of the Trustees, and the niggardly compensation allowed them, gave evidence of the disfavor with which any further loan in aid of the Railway was regarded. Commercial interests were depressed, and the interest charge upon the already immense bonded indebtedness had become very burdensome. Doubt was openly expressed as to whether the two millions would complete the road-bed, while a contract to complete and lease, in the present dependent position of the city, could only be made, it was thought, upon unfavorable terms. These facts, together with the inactivity of friends of the measure, led to the bare defeat of the loan on May 3, 1878,—11,237 votes being cast "for" and 11,456 "against" the issue of bonds.

The defeat of the loan and the conservative state of popular sentiment necessitated a decided limitation in the policy of the Trustees. On May 15, a second $2,000,000 loan was authorized by the General Assembly, differing from the first to the general effect of transferring the completion of the road from the discretion of the Trustees to the determination of popular vote. The Trustees were directed, upon the passage of the measure, to invite proposals for the completion of the Railway and to conditionally accept the lowest and best bid, provided that it did not in the aggregate exceed the amount of bonds authorized by the act. After the bid so accepted had been duly announced, the issue of the bonds should be submitted to the vote of qualified electors of Cincinnati. In the event of popular ratification, the fund realized should be devoted solely to the completion of the Railway, with the exception of the sum of $50,000, to be expended in terminal facilities and in the purchase of right of way.[1] Proposals were at once invited in accordance with the terms of the act, and the lowest of the four bids submitted, that of R. G. Huston & Co., estimated as aggregating

[1] 75 Ohio Laws, p. 559.

$1,671,998.11, conditionally accepted. After a vigorous canvass by both friends and opponents of the measure, a special election was held on August 14, and the loan decisively ratified,—16,224 votes being cast "for" and 10,425 "against" the issue. On August 27, the Huston bid was formally accepted and the contract signed. The opponents of the Railway had, however, not yet exhausted their resources, and continued the attack in persistent litigation, questioning the legality of the later bond issues. No more disastrous condition for all interests could be well conceived than had the plea been upheld and the city left in possession of the uncompleted road. The constitutionality of both loans was, however, sustained by the Superior Court of Cincinnati, and this opinion affirmed by the Supreme Court of Ohio in December, 1878.[1]

This litigation wasted six precious months and effected corresponding injury to all interests. By putting in doubt the validity of the bonds to be issued for the completion of the Railway, it prevented the contractors from promptly commencing or actively prosecuting the work. The city suffered from the loss of the unusually heavy autumn traffic which set in with the general revival of all trades and manufactures. The delay was even more disastrous to the contractors, who were obliged to bear the great rise in the prices of labor and material that took place in the interval.[2] Not until the decision of the Supreme Court had definitely established the validity of the loan was any work done on the contract. In September, 1878, an extension of time was granted the contractors in consideration of the pending suit, and after January, 1879, the work of completion proceeded with great rapidity.

The operation of the completed portion of the road, from Cincinnati to Somerset, by the Cincinnati Southern Railroad

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[1] For the first case *v.* Thomas *vs.* Greenwood, 7 American Law Record, 230. The case in the Supreme Court was never reported.

[2] G. Bouscaren, *Report on Progress of Work*, January 1, 1880, p. 54.

Company had meanwhile been attended with increasing success. The gross earnings of the road for the eleven months ending June 30, 1878, were $366,577.30, or $2320.10 per mile. It was now felt that the terms of the existing lease, which guaranteed a ten per cent. dividend to the stockholders of the company and large salaries to its officers, were by no means as favorable to the city as was proper. Negotiations failing to secure more equable terms, a formal termination notice was served, and in April, 1878, the Railway was re-leased on a determinable license to a syndicate of local capitalists operating under the charter of the Cincinnati Railroad Company. The new lease guaranteed the licensees an annual dividend of seven per cent. on capital invested, but in other respects differed little from the preceding covenant. In June, 1879, the last link was added to the Railway by the location of an independent bed from Boyce's Station to Chattanooga, parallel with the Western and Atlantic Railroad.

In the early part of February, 1880, the entire Railway had been so far completed as to allow the slow passage of through trains. On the evening of February 21, 1880, the first two south-bound freight trains left Cincinnati, laden with meats, whiskey, clothing, drugs, starch, furniture and hats, for Chattanooga, Knoxville, Atlanta, Jacksonville, Charleston, Birmingham, Macon and Meridian. Five days later brought the first return shipment of cotton from Birmingham to Cincinnati. After several weeks of freight traffic to accustom the engineers to the grades and stations of the Railway, the first passenger train was sent on a trial trip from Cincinnati to Chattanooga on March 8. The Railway was formally inaugurated a few weeks later by a monster reception to Southern tradesmen by citizens of Cincinnati. Eleven hundred representative merchants,—many of whom had last visited the neighborhood in the ranks of Morgan or Kirby Smith,—were centered in Chattanooga, brought to the Queen City in special trains and royally entertained for four days. Not the least influence of the Railway, then as now, has been to soften social prejudices and erase sectional lines.

V.

Lease and Operation.

The business of the Railway in both freight and passenger traffic increased steadily during the first year of its operation. The total earnings for the twelve months ending December 31, 1880,—during only ten of which the Railway was open for through traffic,—were $1,487,060.18, of which $345,917.80 was received from passenger and $1,062,410.61 from freight business. The guaranteed dividend of seven per cent. on all invested capital to the operating company became now as unfavorable to the city as the terms of the earlier lease had been. Other considerations too directed public attention towards the final disposition of the road. The burden of municipal taxation imposed to meet the annual interest charge upon the immense bonded indebtedness rendered the receipt of large and regular returns desirable.[1] Commercial interests also urged closer affiliation and more direct connection with southern railroad systems. This was represented as possible only upon a longer lease to a more heavily capitalized corporation.

A section of the original Ferguson act provided for the lease of the Railway, upon its final completion, "to such person or company as will conform to the terms and conditions which shall be fixed and provided by the council of the city by which the line of railroad is owned." This provision had been repealed by a specific clause of the "first two million" act, so as to leave the Trustees only the more limited authority of leasing the road in accordance with the "completing and leasing" theory, after its partial construction and before its final completion. To secure more definite legislation, a conference of the Trustees of the Railway and of the

[1] In 1880 the interest charge was $1,254,300, requiring an item of 7.60 mills in the municipal levy of 25.20 mills. *Cf. infra*, p. 75.

Sinking Fund, with committees of the Chamber of Commerce, the Board of Trade, and the Taxpayers' League, was held in January, 1881, and a bill recommended to the Ohio legislature, authorizing the sale or lease of the Railway, at the discretion of the Trustees,—the sale to be for not less than the aggregate par value of the bonds issued for construction purposes, the lease for a period of not less than twenty-five years, upon terms to be arranged by the Trustees of the Railway and ratified by the Trustees of the Sinking Fund. In passage through the legislature, this act was changed in form from a discretionary to a mandatory measure, the Trustees being now required, instead of authorized, to sell or lease the Railway.

Three general plans naturally suggested themselves,—outright sale, lease at a definite rental, and lease at a fixed percentage of earnings. The Trustees of the Sinking Fund supported the idea of a fixed rental, while a majority of the Trustees of the Railway urged the per centum plan. The joint action of the two bodies was necessary for any final arrangement, and the Railway Trustees yielded eventually in favor of the definite rental scheme. Proposals were accordingly invited for the lease of the road for a term of twenty-five years, with progressive rentals for each period of five years. Ten proposals in all were received, the more important representing the present lessees, several bodies of Cincinnati capitalists, the Louisville and Nashville Railroad, and the Erlanger syndicate, controlling the Alabama Great Southern and the East Tennessee, Virginia and Georgia Railroads. The bids varied in amount from $500,000 to $800,000 per annum for the first term of five years, and from $980,000 to $1,042,000 as the average annual rental. The terms offered were far more favorable than had been anticipated, and excited general elation.[1] On September 3, 1881, the bid of the Erlanger syn-

[1] "If any of the bids equal what the city will this year realize from the Southern, they will be much larger than is anticipated."—*Cincinnati Enquirer*, August 25, 1881, the morning of the day on which the bids were opened. The net sum received by the city in 1880 and 1881 was $420,379.59.—*v.* Report of Sinking Fund, 1885, p. 28.

dicate was accepted, as providing the largest immediate return. It specified a progressive rental of $800,000 per annum for the first five years, $900,000 for the second, $1,000,000 for the third, $1,090,000 for the fourth, $1,250,000 for the fifth. In addition, the lessees covenanted to return the Railway at the expiration of the lease as a completed "first-class single track road." This involved the replacement of much temporary with permanent equipment and the provision of additional facilities, estimated as costing $2,786,462.25,—eighty per cent. of which would probably have to be expended within the first five years. The lessees moreover agreed to purchase all unused material still in the hands of the Trustees and to provide $12,000 annually to cover the necessary expenses devolving on the Board in conducting their trust. The Trustees, on the other hand, agreed to provide terminal facilities in Cincinnati "to the extent of their trust funds provided by law for that purpose," also to secure additional land necessary for the operation of the Railway, upon the request and at the expense of the lessees. A mortgage on the rolling stock and other property of the company was taken as security for the faithful performance of obligations. Non-payment of rental or breach of covenants involved the forfeiture of the lease, and all questions of difference arising between the parties in reference to the terms of the lease were to be settled by arbitration.

An organization was promptly effected by the lessees under the franchise of the Cincinnati, New Orleans and Texas Pacific Railway Company, with a capitalization of $3,000,000. Fifty-one per cent. of this was reserved by the syndicate, the remainder taken at par with unsatisfied demand by local capitalists. A termination notice had some months before been served upon the operating company, and the road was promptly transferred to the new lessees.

The Railway became thus incorporated with an important trunk line, the Alabama Great Southern, or Erlanger system, then operating the Alabama Great Southern Railroad from Chattanooga to Meridian (295 miles), and the Alabama

and Vicksburg Railroad from Meridian to Vicksburg (145 miles). The system has since been extended by the construction of the New Orleans and Northeastern Railroad from Meridian to New Orleans (196 miles),—establishing an unbroken line of railway between Cincinnati and New Orleans; also by the construction of the Vicksburg, Shreveport and Pacific Railroad from Vicksburg to the Texas-Louisiana State line (189 miles), where connection is made with the Texas Pacific Railroad. The total mileage of the system is thus 1159 miles.

In April, 1890, the East Tennessee, Virginia and Georgia Railroad purchased from the Erlanger syndicate a controlling share of the stock of the Alabama Great Southern Railroad, and thus secured a voting power over a majority of the capital stock of the Cincinnati, New Orleans and Texas Pacific Railway Company. The two systems have since been associated in operation as the "Queen and Crescent Route," with Cincinnati as the northern terminus.

In March, 1893, by amicable suit instituted by the chairman of the board of directors as stockholder and creditor, the C. N. O. & T. P. Railway Co. was adjudged insolvent by the United States Circuit Court of Ohio, and Samuel M. Felton, president of the company, appointed receiver. The depressed condition of the South, the increasing rental and the shortening term of lease had for some time arrested the earnings of the lessees. The immediate cause of the receivership was the decision of the Superior Court of Cincinnati in the so-called "Doughty over-issue cases," whereby the company was held liable for the issue by a former secretary of a large amount of fraudulent stock. An attempt to secure from the stockholders the bond necessary to carry the cases to the Supreme Court of Ohio having proven unsuccessful, and the holders of the judgments being unwilling to accept a second mortgage on the acquired property, resort was had to the receivership in order to protect all interests by preserving the property intact and to enable the cases to go in appeal to the Supreme Court.

The appointment of a receiver for the operating company does not, it is believed, affect the city's interest in the Railway. A leasehold, and not the Railroad itself, is involved. A default in rental would lead to a sale of the lessee's interest, and the purchaser would be subject to the terms and covenants of the lease, precisely as the present company. Any deficiency in rental would be secured by the prior lien held by the Trustees. At the present time the prompt payment of rental and the unimpaired operation of the road under the receivership render the above consequences interesting mainly in point of theory.

Since 1880 the relation of city and Railway has consisted largely in the formal payment and receipt of rental. Further contact has centered about two points,—the provision of adequate terminal facilities, and the extension of the present lease. So much light is thrown in this connection upon the attitude of the several interests concerned, as to make it worth while to trace in some detail the development of the present situation.

While the Railway was still operated upon a determinable license, the pressing need for terminal facilities in Cincinnati led to the passage by the Ohio legislature of a bill authorizing a special loan of $300,000.[1] By the terms of the 1881 lease, the Trustees agreed to expend the entire fund for this purpose. Up to 1885 about one-half of it had been used in the purchase of depot and yard sites, while negotiations were pending for devoting the remainder to their conversion and improvement. In January of that year, an opinion was submitted by the attorney of the Trustees denying the legality of this practice, and holding that no portion of the loan could be properly expended for any purpose other than the literal purchase of property or right of way. Specific authority was accordingly secured from the Ohio legislature in April, 1885, for the expenditure of any portion of the fund for "the improvement of grounds already acquired." After some

[1] 77 Ohio Laws, p. 153.

delay, contracts were awarded, and in the following year, the work prosecuted almost to the full limit of the fund. The operation of the road was meanwhile proving more onerous to the lessees than had been anticipated. This arose less from the amount of the rental charge than from the fact that the expenditures for completion and betterment, instead of being spread equally over the entire term of the lease, thus needing an additional annual outlay of about $100,000, had largely to be made within the first few years. This requirement had been specifically stated in an unofficial exhibit, supplementary to the published call for bids,[1] but seems to have been overlooked or underestimated by the leasing company. As it was, the amount so expended up to January 1, 1887, was $1,266,017.26, making the gross average annual rental for the first quinquennial term $1,065,203.43, or 32 per cent. more than the $812,000 directly provided by the lease. In view of the increase of fixed rental which the second term of the contract would bring with it, and the probable continuance of large expenditures for permanent improvements, an attempt was now made to modify the terms of the lease by deferring the payment of $200,000 of the annual rental for a term of seven years, to be then repaid with interest in annual installments of $100,000. A bill embodying this modification was presented to the Ohio legislature in 1886, but failed of passage. The delay in providing adequate terminal facilities, the uncertainty of remedial action, and more directly the failure of this attempt to modify the terms of the lease, led the lessees in December, 1886, to file a claim with the Trustees aggregating some $500,000 for expenses incurred up to that date from the want of adequate terminals. Without admitting the validity of the claim, the Trustees proceeded to

[1] "I estimate that 80 per cent. of the entire amount estimated must be expended in the first five years of the lease, in equal yearly installments of say $445,000 each."—Letter of G. Bouscaren, Consulting and Principal Engineer, to W. H. Clement, General Manager of the Cincinnati Railroad Company. Published by the Board of Trustees, November 19, 1880.

take the matter under careful advisement. A conference of lessees and Trustees was held in April, 1887, and an agreement effected, that in consideration of the company not pressing its claim until the close of the session of the General Assembly of 1888, the Trustees would endeavor to secure legislation permitting an extension of the time of the lease, and an exchange of the outstanding bonds for longer time, lower rate securities,—necessary for any rearrangement of the rental charge. An enabling act of this character passed the Ohio Senate during the legislative session of 1888, but remained pending in the House. By mutual agreement the matter continued *in statu quo* until the passage in March, 1889, of the supplementary act known as the "Mack Bill," providing for the conversion of the outstanding bonds into lower rate, longer time securities, and authorizing an extension of the time of the lease, upon the condition that the rental during the extension should not be less than $1,250,000 per annum.[1] It permitted no modification of the lease, as desired by the lessees.

The leasing company declined to take any action under the provisions of this measure, and at once served notice terminating the agreement of April, 1887. A new claim, aggregating $824,406.35, was presented as the expenses incurred from the beginning of the lease up to that time; first, by the absence of adequate depot and yard accommodations; second, by the misrepresentations of the Trustees as to the condition of the Railway at the time of its lease. Some weeks later, a formal demand for arbitration, as specifically provided in the lease, was transmitted, and Mr. Grover Cleveland and Mr. Clarence G. Seward named as arbitrators for the company. Further imminent complications were checked at this point, and the matter properly brought up for judicial determination by the petition of the City Solicitor of Cincinnati for an injunction restraining the Trustees from proceeding to arbitrate the claim of the company. A tem-

[1] 86 Ohio Laws, p. 67.

porary injunction was allowed in the Court of Common Pleas, but afterwards dissolved. A second restraining order was granted on appeal to the Circuit Court, and the case adjudicated. The important allegation of the petition was that the power and duties of the Trustees had ceased with the lease of the Railway, and that the demand made upon them for arbitration was for this reason entirely nugatory. It virtually became a plea for the ouster of the Board. A majority of the court decided, (1) that the office of Trustee was still in existence and held by the present incumbents; (2) that the arbitration clause of the lease was valid and binding for losses incurred from the want of adequate terminal facilities; (3) but not for damages arising from misrepresentation in the original lease. The presiding judge agreed on the first and third propositions, but dissented on the second, holding that the Trustees were required by the lease to provide terminal facilities only to the extent of their trust fund; that of this sum, two hundred and ninety thousand dollars had already been spent and that practically nothing therefore remained to arbitrate. The case has been taken in appeal to the Supreme Court of Ohio and is now pending. In the interim, an attempt has been made to arrive at a partial settlement of the whole vexed question of terminal facilities by the vacation of certain streets in Cincinnati through municipal ordinance.

The Railway, upon its completion, took rank as an important north and south trunk line. Its strategic position gave special advantages over established roads and secured a large amount of competitive trade. Experience soon however made it clear that the usefulness of the Railway could be more fully realized by large outlays made by the leasing company for improvement and extension purposes and by permanent agreements with connecting roads. This, it was represented, demanded an enlargement of capital, possible in turn, only upon the basis of an extension of lease. The desirability of some such action was early presented by the leasing company, gradually recognized by public sentiment, and later urged by the commercial interests of the city. In March, 1889, the

"Mack Bill," already referred to, was passed, authorizing the Trustees, with the approval of the Trustees of the Sinking Fund, to extend the time of the lease for a term not exceeding forty years, provided that the rental after the expiration of the present lease should not be less than $1,250,000 per annum, and that the extension should be made within three years after the passage of the act. The operating company declined to entertain any modification of the lease as therein authorized, and for two years the act remained practically inoperative. In the spring of 1891, attention was called anew to the desirability of some permanent agreement and the necessity of immediate action if the change was to be effected under the provisions of this measure. The matter was promptly taken up by the commercial bodies of Cincinnati and referred to a joint committee for consideration. A comprehensive report was submitted and adopted by the several bodies. It declared that with the present lease in effect, the sale of the Railway could only be made to the lessees, and consequently with the city placed at a serious disadvantage. Even were it possible for the lessees to secure a modification of their charter so as to authorize an outright purchase, and to pay to the city the full value of the Railway, practically insurmountable difficulties yet remained. Thus, enabling legislation would have to be secured not only in Ohio, but in Kentucky and Tennessee as well; the question of sale would have to be submitted to the electors of Cincinnati, and the unanimous consent of the bondholders holding a first lien upon the railway would have to be secured. It was the opinion of the committee that the best interests of the city would be subserved by an extension of the present lease in perpetuity, under the essential conditions of the "Mack Bill." In addition, it was recommended that a provision be inserted in the lease that when the gross earnings of the road exceed a certain amount per mile, a fixed percentage of the surplus should revert to the city as increased rental; also, that in view of the valuble concessions proposed in a perpetual lease, a specific covenant be added that the

rates from Cincinnati to certain southern points should not exceed specific percentages of the rates from New York to such points. Upon the announcement of the report, and prior even to its adoption, the president of the leasing company publicly declared that an extension of the lease upon the conditions named would not be accepted. No formal proposition was either made or received by the Trustees, and on March 6, 1892, the authority conferred by the "Mack Bill" expired by limitation.

An enabling act passed March 12, 1887, and apparently still in force,[1] authorizes the Trustees of the Sinking Fund to negotiate for the sale of the Railway whenever a resolution declaring this advisable shall have been passed by the city council. The terms of the sale must be submitted to and endorsed by a majority of the qualified electors of Cincinnati. No action has been taken under this act. A measure compassing the same end, but in less satisfactory form, was introduced in the Ohio legislature in March, 1893. Instead of the Trustees of the Sinking Fund, the mayor and corporation council were empowered to sell the Railway, at not less than the aggregate par value of construction and terminal bonds. The expediency of sale, and not the terms provisionally accepted, were to be submitted to popular vote. The inspiration of the measure was in some doubt, and through the active efforts of the commercial and other interests of Cincinnati, it failed of passage. It is probable that any change in the present status of the Railway will be preceded by new and specific legislation.

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[1] 84 Ohio Laws, p. 82.

VI.

A Review of the Trust.

Before proceeding to describe the influence of the Railway upon Cincinnati and its various interests, it seems desirable to add something of criticism to the preceding facts.

Little need be said in this connection regarding the general theory upon which the Railway was built. The necessity of a direct line of communication with the South had long been admitted; in default of individual or State initiative, municipal construction remained the only alternative. It may perhaps be doubted whether, with a full knowledge of the time, cost and embarrassment involved, the construction of the Railway would have been undertaken at the precise time it was. Yet it is difficult to see what other could have been the outcome of the situation. Conservative sentiment declared that if the road were demanded, it would ultimately be built by private capital. But the commercial existence rather than the development of Cincinnati was threatened, and while the building of the road may have been attended with hazard, it would have been much more hazardous not to build it. It was a realization of this fact that led to the support of the plan of municipal construction, not only by the commercial bodies of the city, but by the entire local press and by intelligent sentiment at large.

The Ferguson act is among the most original and ingenious pieces of American legislation. The constitutionality of both the enabling measure and of the mass of supplementary enactments has been established in repeated litigation and seems finally clear of doubt.[1] Opinion differs as to the

[1] The validity of the enabling acts was directly sustained by the Superior Court of Cincinnati in Walker *vs.* Cincinnati (1 Cin. Sup. Rep., 121) and in Thomas *vs.* Greenwood (7 Am. Law Rec., 320). These cases were affirmed in the Supreme Court of Ohio, only the first being reported (21 Ohio St., 14).

theoretical correctness of the judicial construction. The letter of Judge Cooley already cited is largely in the line of the final interpretation of the Ohio courts. On the other hand, Judge Dillon says of the leading case in the Supreme Court of Ohio, Walker *vs.* Cincinnati (21 Ohio St., 14), "It seems difficult to avoid the conclusion that this construction thwarts the intention and purpose for which the provision was designed and adopted," and again, "Particularly does it subvert all previous notions of appropriate powers, functions and duties of municipalities."[1] Similarly Judge Redfield criticizes the same decision for its failure to declare the law void, as being "in violation of the true spirit and intent of the constitution," and lays down as a fundamental objection to the interpretation, that "one State can neither by itself nor its municipalities construct and maintain public works of internal improvement in other States."[2] In Pleasant Township *vs.* Aetna Life Insurance Company,[3] Justice Brewer, of the U. S. Supreme Court, while distinctly refraining from criticizing the decision in Walker *vs.* Cincinnati as erroneous, noted the fact that "the statute therein construed was a skillful avoidance of its generally understood scope."

Although consistently maintaining the constitutionality of the Railway legislation, and the correctness of the original judicial decision, the Ohio courts have zealously guarded the interpretation so made. In April, 1872, a measure known as the "Boesal Law,"[4] purporting to be similar to the Ferguson act, was passed by the legislature, authorizing counties, townships and municipalities to build railroads. It provided for the appointment of boards of commissioners, who should in each case issue bonds to a specified amount, and contract for the construction of an entire railroad or for the greatest number of miles that a responsible bidder would agree to build for the sum appropriated. The road so con-

[1] *Municipal Corporations*, 4th ed., i., p. 229.
[2] 11 Am. Law Reg. (n. s.), 346.
[3] 138 U. S. Rep., 71.
[4] 69 Ohio Laws, p. 84.

structed was to be sold or leased either before or after completion. Under the actual operation of the law, the local authorities never seriously undertook the work of public construction, but at once contracted with an existing or projected railway. To all purposes it was as though a local subscription to the amount of the bonds authorized had been made to a specific corporation. The local courts sustained the constitutionality of the measure under the decision of Walker *vs.* Cincinnati. The Supreme Court of Ohio, however, pronounced it a palpable evasion of the constitutional restriction, and granted a perpetual injunction against the issue of bonds.[1] In 1880 several acts of the same character, general in form but special in fact, were passed by the legislature, authorizing certain townships to build railroads. They were promptly declared unconstitutional by the Supreme Court of the State and perpetual injunctions granted.[2]

The Ferguson act conferred "the greatest trust ever before committed to any board in the State of Ohio"[3] upon a body of five trustees, appointed by a local court and holding office during good behavior. Something has been already said of the policy which determined the composition of this board. The duties devolving upon it were recognized as various and important. It was believed that where delicate legal, financial and technical matters were in turn involved, the appointment of a commission composed exclusively of railroad experts was undesirable. The influence of a single person of this kind would, on the other hand, prevent anything like collective activity. Representative citizens of unquestioned integrity and large public spirit were accordingly selected for the execution of the trust, rather than persons technically skilled in railroad construction. The unfitness of a board of railroad experts may well be conceded. The Railway is primarily a legal triumph, and it is highly question-

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[1] 23 Ohio St., p. 76.

[2] *v.* Wyscaver *vs.* Atkinson, 37 Ohio St., p. 80, and Counterman *vs.* Dublin Township, 38 Ohio St., p. 515.

[3] *Report of Investigating Commission*, p. 49.

able whether a technical body could alone have piloted the project through the legal reefs that threatened its entire course. The prospective need of legal assistance, if nothing else, would have urged the appointment of Mr. E. A. Ferguson as a trustee. In the long fight for enabling legislation in Kentucky, in the bitterly contested litigation questioning the validity of the construction loans, and in the preparation of repeated supplementary measures, the direction of affairs was always left to him. The negotiation of the several loans called for general business experience and sagacity rather than for any high degree of special skill. Yet whenever occasion arose for *finesse*, the practice of the Trustees was to entrust it to those members of their body most experienced in financial operations.[1] The remaining members of the Board in every case exercised active advisory functions, and the responsibility assumed was at all times collective.

The technical skill required in the projection and construction of the Railway presents an exact parallel. It seems surprising that the *personnel* of the Board should not have included one or more persons of the same high character and integrity, but as skilled in railroad construction, as were certain other members, respectively, in legal and financial matters. The "one-man" power discredited in construction was resorted to in litigation and, in a less degree, in bond negotiation, and proved eminently successful. Even with the adopted policy, individual predominance could not be avoided. It was simply shifted from a technically skilled Trustee, aware of his own responsibility and the magnitude of the issues involved, to an employee whose interests must at best have been professional. The Trustees exercised great care and sagacity in the selection of their chief subordinates, and were seldom disappointed. Yet there were occasions when the absence of technical oversight was keenly felt, and it can hardly be doubted that the checking, testing influence of a skilled Trustee would at all times have been advantageous.

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[1] *Report of Investigating Commission*, p. 76.

Time and experience have fully vindicated the judgment of the Trustees in the direction of preliminary surveys, the selection of a main route, and the final location of the Railway. The work of the surveying department consumed more than two years of time and cost $183,969; but it placed the Trustees in full intelligent command of the situation and made possible the selection of absolutely the best line. The cheaper grades of the "Eastern" route would have probably meant several millions less total cost, but in selecting an air line, the Trustees chose even wiser than they knew. The failure of negotiations with the Kentucky Central Railroad and the Newport Bridge Company led to the construction of an independent line from Lexington to Cincinnati. It developed a certain amount of local hostility and retarded the progress of the work somewhat. On the other hand it materially shortened the route, and secured actual ownership of a terminal approach instead of a mere easement over one already existing.

The issue and sale of bonds was one of the most important duties committed to the Board of Trustees. Three construction loans, aggregating eighteen million dollars, were authorized between 1869 and 1878. These were negotiated barely at par in the form of thirty-year bonds, bearing interest variously at six, seven and seven and three-tenths per cent., without option of earlier redemptions. In the light of positive results, this seems the least satisfactory part of the activity of the Trustees. Some care is, however, necessary in determining in how far it has resulted from their choice, in how far from conditions beyond their control. The gravest obstacle to the successful negotiation of the loans was the statutory restriction to sale of bonds at par. It necessitated the use of a high interest security, which, as has been seen, operated as *prima facie* evidence against the credit of the city. A lower rate bond, offered at a discount, could have been negotiated much more readily, and, all things considered, upon as favorable terms.[1] The Trustees were, however, as powerless in

[1] *Report of Investigating Commission*, p. 76.

making this substitution as in effecting any change in the absolute amount of the loan. The enabling acts provided for the issue of bonds to a certain amount, to be negotiated under certain conditions, of which sale at not less than par was one. The Trustees were left with no discretion whatever in the matter. After the failure of negotiations with English capitalists, they were urged to seek authority for the issue of bonds having lower interest and negotiable below par. It was, however, clear that no supplementary legislation of any kind could be secured at a time when the expediency of the entire project was in doubt, and no steps were taken in this direction. Even under ordinary circumstances, it is improbable that a modification of the kind could have been effected. The clause restricting to sale at par was added to the Ferguson act in passage through the Ohio legislature, as it was to every act authorizing a municipal loan in Ohio. During the same session of the legislature, this practice crystallized into a general statute, that "in no case shall the bonds of a corporation be sold for less than their par value."[1] How strong was the hold of this limitation upon the legislative mind is seen in the fact, that despite the unsatisfactory results of the first loan and the passage of a general enactment, precisely the same restriction was inserted in the subsequent six and two million acts.

Whether the Trustees were justified in the use of a long term irredeemable bond will probably always remain a debated question. Taught by actual results, it is easy to characterize as a financial blunder the policy whereby the city, although now borrowing money at four per cent., is still made to pay seven and three-tenths per cent. upon bonds secured both by the municipal faith and by a statutory mortgage lien upon an unquestionable asset. Such sweeping criticism has little regard for the conditions under which the loans were placed. In the financial depression of the period, the negotiation of a redeemable loan would have been practically

[1] 66 Ohio Laws, p. 263.

impossible and was so recognized. The need for funds had grown imperative in each case, and with the abandonment of the entire project as the only alternative, the Trustees undoubtedly acted as wisely as they knew. The general nature of the final negotiations was endorsed by able financiers and seems to have been the most favorable that the peculiar circumstances involved would permit.

The plan adopted by the Trustees in the negotiation of the loans was to address circulars to large financial interests, followed by specific negotiations for blocks of bonds. The question has been raised whether a proper system of general advertisement for the sale of bonds in limited amounts would not have resulted in more favorable terms, or at least have preserved the Trustees from the temptation to lavish expenditures involved in the possession of large quantities of ready money. Here as elsewhere, a categorical answer is impossible. It seems, however, clear that the operations of the Trustees throughout the early period of construction required the easy control of large sums of ready money. During 1887 their expenditures were from two hundred thousand to four hundred thousand dollars per month. It would have been hazardous to rely on periodic bond sales to meet these liabilities. On the other hand, any exercise of the reserved right of paying contractors with bonds would have enhanced the cost of construction and probably have affected the credit of the city. There is no evidence that the large sums of money on hand tended to extravagance. Surplus moneys were promptly converted into government securities and utilized only as needed.

The absence of a practical engineer in the Board of Trustees proved to be a serious weakness in the award of contracts relating to the construction of the road-bed. Technical skill and not ordinary business experience could determine what bids were exorbitant, in what cases contracts should be awarded to other than the lowest bidder, when plans should be modified, and when classifications raised in order to prevent suspension of work. The Trustees were

dependent in these and in similar matters upon the fidelity and capacity of the consulting and principal engineer, an expert of high reputed ability and integrity. Searching investigation failed to disclose any trace of fraud or collusion, yet the presence of an experienced, responsible trustee must have proven clearly advantageous. Bidders for grading and masonry were provided with copies of the classifications and quantities to be excavated, as reported by the division engineer, but were, however, cautioned not to rely upon these data, but to make personal examination of the locality. As results showed, this latter injunction was generally disregarded, and the engineers' profiles and classifications came to be regularly employed as the basis of bids as well as awards. A wide discrepancy consequently resulted between the original estimates of the cost of the work and the amount actually expended. The original estimates for the grading and masonry of 321 sections of the Railway aggregated $6,367,759.87; the actual cost was $9,688,885.39, or 52 per cent. more than the amount estimated.[1] The uncertain character and great irregularity of the region penetrated must in any event have caused some inexactness. Thus in 33 sections, the final cost of construction proved less than the original estimates. In other cases, the engineer's estimates, although less than the final cost, were still in excess of the contractor's estimates. A large part of the discrepancy also arose from a subsequent change in the policy of the Trustees, from the construction of an average road as provided in the original estimates of one engineer, to that of a much superior and altogether different road as built by his successor.[2] Yet it seems clear that the profiles and classifications of the engineering department should have been originally prepared with more exactness or afterwards carefully revised. The wide divergence between estimated and final cost not only fostered unfriendliness towards the project by creating a false impression of the total cost of the Railway, but actually

[1] *Report of Investigating Commission*, p. 238.
[2] *Ibid.*, pp. 204, 216.

increased the aggregate expenditure in cases where final quantities of different classes of material were not proportional to the approximate classifications upon which the awards were made. Finally, in cases where bidders followed the injunction of the Trustees and visited the locality, the more accurate knowledge thus obtained, as against the approximate classifications used by the Trustees in the award of bids, gave opportunity for legitimate but exceedingly disastrous shrewdness in the preparation of bids. One notorious instance of this was contract No. 34, for sections 50 and 51, Division B. The classifications represented 157,900 cubic yards of "earth excavation," 147,900 cubic yards of "embankment" and no "loose rock." A contractor who had been in the topographical corps during the war and active in that region of Kentucky, at once saw the improbability of the classification. He visited the section, and after careful examination, aided by accidentally exposed strata, submitted a bid with low figures on "earth excavation," and very high rates on "embankment" and "loose rock." The issue of the work justified his most sanguine expectation. The work aggregated only 41,132 cubic yards of "earth excavation," but 107,012 cubic yards of "loose rock," and 204,396 cubic yards of "embankment." The total cost of the two sections was $140,307.17, as against the original estimate of $48,346.00. Of the 54 other bidders on these sections, all but one would have done the work for less, by amounts ranging from $8,723.86 to $67,496.50, and averaging $38,382.32.

The plan of securing the completion and lease of the railway by a single contract, or the "completing and leasing" theory, has been criticized as the *ignis fatuus* of the trust. As has been pointed out, it was less the original choice of the Trustees than the plan forced upon them by the popular discontent of 1873; thenceforth it, however, remained their anticipated policy. Its advantages were obvious. The funds of the trust would be supplemented by private capital and further municipal loans obviated. The Railway would be opened

for through traffic at an earlier date than otherwise; inasmuch as the lessees could distribute the work of detailed construction over a number of years, whereas the Trustees would be obliged to finish it at once. Finally, the lessees could afford to take reasonable risks in construction, which, in view of the liability of the city as a common carrier, the Trustees could not. These considerations more than counterbalanced the obvious disadvantage that the plan involved the organization of private capital on a large scale and under unusual conditions, and in any but a period of railroad activity placed the city in a somewhat dependent position. The consummation of a "completing and leasing" contract was prevented by a series of unexpected events, whose curious sequence has already been traced. The action of the Trustees seems, however, to have been reasonable and consistent throughout, and offers no ground for unfavorable criticism.

The history of the Railway can only be intelligently understood in the light of a small but persistent residuum of local hostility, largely responsible for the frequent vacillations of public opinion, and for the consequent delay in the completion of the road. Various elements contributed to its composition. Certain conservative interests,—retired capitalists and extensive property-owners, whose prospective advantages were more or less indirect,—opposed the project from the very outset. A limited number of public-spirited citizens conscientiously believed that the plan was unconstitutional, and that despite the decisions of the courts, it would ultimately be so declared. The friction inevitably incident upon the selection of Trustees and the location of route added a personal, and consequently a most bitter element of opposition. Finally, a larger class were, at best, indifferent to the success of the work, because the city "had no business to build a railroad." This vein of local hostility can be traced from the very inception of the project. Immediately after the publication of the Ferguson act an alternative plan of securing an amendment to the State constitution was agitated. The practical unanimity with which the Ferguson

act received popular endorsement silenced for a while all opposition. After the defeat of the first Kentucky act, it again revived, and continued active in the legal proceedings directed against the validity of the enabling acts. The insertion of prejudicial amendments in the Kentucky right of way grant was followed by an agitation for the repeal of the Ferguson act. So in turn came the enforced adoption of the "completing and leasing" theory, the embarrassments attending the negotiations of the first loan, the amendment of the "six million" act, and the subsequent exhaustion of funds, the renewed litigation of 1878, the defeat of the "first two million" act, and the limited authority conferred by the second. The same spirit, strengthened somewhat by popular dissatisfaction at the long delay in the completion of the Railway, culminated in May, 1878, in the passage of a joint resolution by the General Assembly of Ohio, authorizing the appointment by the Trustees of the Sinking Fund and the Board of Public Works of a commission of three persons, "to investigate into the condition of the affairs of the Cincinnati Southern Railway, to examine into the management of their trust and the disbursement of moneys entrusted to their care." A most searching inquiry into the operation of the trust from its creation was instituted. The records of the Board were examined in great detail and the personal testimony of the Trustees and many other persons interested was heard. The investigation extended over a period of nearly eight months, and not until early in 1879 was the report submitted, a voluminous pamphlet of some 240 pages, whose evidence has often been cited in the preceding paragraphs. The investigation may fairly be said to have been conceived and prosecuted in the spirit that there was something to be found out, dark and unholy things needing to be brought to light. Men even as fair-minded as the members of the Investigating Commission must in some degree have reflected the general sentiment. The report throughout is accordingly sharp and unsympathetic. The selection of Trustees, the negotiation of bonds, the "completing and leasing" theory, the failure of

negotiations with the Newport Bridge Company are smartly criticized. The conduct of legislation, the work of preliminary surveys, the selection of route receive endorsement. The tenor of the whole is fairly indicated in the faint praise with which the Trustees are finally damned: "The Trustees have made costly errors, for which a discriminating public judgment will scarcely hold them blameless, but it affords the commission pleasure to state that they have found no evidence going to show that any one of them has sought any pecuniary gain in violation of his trust."[1]

Both the cost of the road and the time consumed in its construction far exceeded popular expectation. It has been said with justice that "there were probably few persons who voted in 1869 to provide the line of railway who would have done so in anticipation of an expenditure of eighteen millions of dollars and a lapse of ten years before its completion."[2] When the Ferguson act was passed, whatever may have been the opinion of those immediately interested, it was generally believed that no further municipal aid would be required, and that in a few years the Railway would be open for through traffic. Mention has already been made of the various unexpected events,—legislative opposition, persistent litigation, the unknown character of the country, local unfriendliness, industrial depressions,—which delayed the completion of the road. The same reasons, combined with the failure to receive anticipated aid in Kentucky and Tennessee, and inability to effect a "completing and leasing" contract, would have rendered to some degree inexact, the most precise estimate of final cost made at the time of its projection. It seems, however, clear that no estimation of this kind was made, and that the sum of ten million dollars was inserted in the Ferguson act under the general impression that it would build the Railway. Some friends of the measure appear indeed to have realized that this sum would prove inadequate; but these felt, on the other hand, that it

[1] *Report of Investigating Commission*, p. 49.
[2] *Ibid.*, p. 49.

was the heaviest strain which public sentiment would bear. The result of this inexactness, deliberate or otherwise, was unfortunate as far as the activity of the Trustees was concerned. The Board was invested by popular sentiment with the responsibility of completing the Railway for the amount provided in the original loan. The failure to do this engendered unfriendliness and distrust. Every subsequent loan brought additional hostility, and although the aggregate cost of the railway is relatively low, "less than the average cost of the well-built railways of this country,"[1] it was vaguely yet strongly believed in 1880, when the two million loan had been exhausted and details of completion still remained to be added, that there had been a great leak somewhere.

The testimony of experienced engineers and railroad experts agrees in characterizing the Railway as well built. The character of much of the work done was of a high order, superior to that ordinarily employed in Western railroad construction, and often described by contractors as "government work." Portions of the substructure have indeed been criticized as extravagantly built, and it is beyond a doubt that railroad connection, independent of the character of the road, could have been established between Cincinnati and Chattanooga by private enterprise for much less than the present work represents. A direct consequence of municipal construction, involving the possibility of municipal operation and liability, was that the Railway should be planned on a more substantial scale than if built by private enterprise. Whatever dissatisfaction this policy may have excited at the time, in view of the greater cost involved, subsequent experience has fully demonstrated its wisdom and shown that a road built for all time is, in the long run, the cheapest.

The 1881 lease of the Railway represents the final realization of the "completing and leasing" theory. An immediate source of revenue was provided and the city, at the same time, relieved of the cost and labor of detailed completion.

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[1] *Report of Investigating Commission*, p. 38.

The terms of the covenant were heartily approved by local sentiment and the action of the board of trustees generally commended.[1]

In the objective study of an institution, it is rarely possible to recognize personal elements. Yet any survey of the influences at work in the history of the Cincinnati Southern Railway would be imperfect without a clear recognition of the part contributed by a single personality, Mr. Edward A. Ferguson, the author of the original enabling act, and a member of the Board of Trustees since its creation. In so far as it is possible to speak of any large work as the product of a single agent, the Railway is to be associated with his name. The inception of the project, every piece of legislation, is traceable to his legal ingenuity. He is closely identified with the actual construction and ultimate disposition of the Railway, and but few details in its history fail to reveal the impress of his activity. Material interests, political preferment have been sacrificed, and a life of high possibilities devoted with rare unselfishness to this one end.

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[1] "The general feeling is that the Trustees have done a great and trying duty nobly. There need be no fear either, that they have been deceived in their parties. They have yet to get the worst of it in a money transaction with all the millions they have handled." —*Cincinnati Commercial*, Sept. 4, 1881.

VII.

Municipal Results.

The magnitude of Cincinnati's undertaking is best revealed in the financial operations attending it. Within a period of ten years, four successive bond issues sharply swelled the indebtedness of the city by some eighteen million three hundred thousand dollars, and added an interest charge of one and a quarter million dollars to its annual expenditures.

The significance of this can be better appreciated by an exhibit of the municipal bonded debt for a somewhat longer period. The appended table shows the net liabilities of Cincinnati from 1864 to 1880:[1]

At close of	
1864	$3,840,000.00
1865	3,203,000.00
1866	3,279,300.00
1867	3,459,500.00
1868	4,507,000.00
1869	5,020,000.00
1870	4,883,000.00
1871	5,363,000.00
1872	6,001,500.00
1873	6,143,500.00
1874	9,593,500.00
1875	17,325,500.00
1876	20,428,500.00
1877 (May 28)	23,306,500.00
1877 (Dec. 31)	22,830,500.00
1878	23,220,500.00
1879	23,856,330.00
1880	23,953,981.85

It is probable that the market value of the city's securities in general has been affected in some degree by the formal statute in force in certain States, that no institution of trust shall invest its funds in the securities of municipalities having more than a fixed per capita indebtedness.

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[1] *Fifteenth Annual Report of Trustees of Sinking Fund*, 1892, p. 24.

The financial depression of the period, the exigencies of the Trustees, and the restriction to sale at par led in the negotiation of the loans to the use of long-term, high-interest, irredeemable bonds; hence, during the entire period of construction, the statutory provision for interest and sinking fund formed a most burdensome item in the municipal tax levy. This will be seen by reference to the appended statement:

Year.	Amount of Principal.	Amount of Interest.	Municipal Levy [1] (mills).	C. S. R. Interest [2] (mills).	C. S. R. Sinking Fund [2] (mills).
1873	$200,000.00	$7,000.00	14.45	2.50	.25
1874	1,700,000.00	68,000.00	16.00	4.70	.50
1875	5,700,000.00	304,500.00	16.00	7.20	1.00
1876	10,000,000.00	727,900.00	19.32	6.32 9.77	1.00 2.00
1877	16,000,000.00	1,133,843.82	20.70	10.85	1.30 2.30
1878	16,000,000.00	1,125,102.90	23.41	9.35	1.16 2.16
1879	17,000,000.00	1,176,800.00	23.92	7.37 10.45	1.16 1.91
1880	18,000,000.00	1,254,300.00	25.20	7.60 10.64	1.16 1.91

A large measure of relief came with the permanent lease of the Railway in 1881. Since then the amount to be raised by taxation has been very materially lessened by the annual rentals of the leasing company. Exchanges to a limited extent have also been effected at market rates of high interest construction bonds for four and five per cent. redemption bonds. This has increased the total bonded indebtedness of the city somewhat, but lessened the annual interest charge

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[1] Includes levy for educational purposes.

[2] Prior to 1876 and occasionally thereafter, no distinct levies were made for the Cincinnati Southern Railway interest charge and sinking fund. To facilitate comparisons, two figures are given,—the upper referring to the special C. S. R. levies, the lower, in finer type, to the provision made for the total municipal indebtedness.

more than proportionately. The interest charge, the rental, the deficit and its relation to the municipal levy during this period, are as follows:

Year.	Amount of Interest.[1]	Rental of Railway.[2]	Deficit or Interest Charge.	Municipal Levy[3] (milis).	C.S.R. Interest (mills).	C.S.R. Sink'g Fund (mills).
1882	$1,260,940.00	$817,155.99	$443,784.01	18.96	1.84	1.16
1883	1,265,962.50	815,548.78	450,413.72	16.00	2.82	1.10
1884	1,266,475.00	818,571.60	447,903.40	20.22	2.78	1.10
1885	1,267,049.00	818,758.00	448,291.00	20.64	3.42	.50
1886	1,267,561.50	828,777.50	438,784.00	19.14	2.33	.50
1887	1,268,074.00	918,830.00	349,244.00	20.84	2.11	.50
1888	1,278,734.00	919,828.51	358,905.49	20.61	2.15	.50
1889	1,272,584.00	921,507.00	351,077.00	20.59	2.15	.50
1890	1,272,584.00	921,507.00	351,077.00	20.24	2.15	.50
1891	1,272,584.00	921,507.00	351,077.00	21.75	1.53	.50
1892	1,272,584.00	1,021,507.00	251,077.00	20.96	1.48	.50

The unfortunate use of high-interest bonds, without option of earlier redemption, is emphasized by reference to the above table. Were the bonds redeemable, the loans could have been refunded long since at four per cent. and the city now be in receipt of an annual surplus of $250,000, increased in 1896 to $340,000, and in 1901 to $500,000. As it is, not until 1901, when the rental reaches one and a quarter million dollars per annum, will the Railway become practically self-supporting. Thereafter its financial status seems reasonably assured. The first loan of ten million dollars expires in 1902. Refunded at four per cent., an annual net surplus of $325,000 will revert to the city. The remaining loans fall due at intervals within the next five years. Assuming that they will be refunded upon no more favorable terms, and that the rental of the Railway will not rise above one and a quarter million dollars, this annual surplus should, nevertheless, increase in 1907 to more than $475,000, and in 1909, when the last high interest loan will have expired, to more than $525,000.

No account is here taken of an accumulating sinking fund, statutory provision for which was made in the several

[1] Includes terminal rents chargeable to railway.
[2] Includes profits on bond exchanges.
[3] Includes levy by Board of Education.

enabling acts, in accordance with the Ohio statute law governing the creation of municipal debts. A specific item for this purpose has appeared in every municipal levy since 1876, and a formal apportionment of the general sinking fund of Cincinnati, into which the moneys so realized have been merged, gave on January 1, 1892, $3,437,247, as the amount available for the reduction of the Railway indebtedness.[1] This introduces a factor of the highest importance into the financial status of the Railway.

Assuming the retention of the present levy of one-half mill upon a valuation of $185,000,000 (1891), or an annual increment of ninety thousand dollars, and cumulation at four per cent., the sinking fund available for the reduction of the ten million loan in July, 1902, when it falls due, will be, in round numbers, $6,725,000. The residue, $3,275,000, can be refunded at four per cent. or better, and the total interest charge thus be reduced to nearly $675,000 per annum, leaving an annual surplus of about $575,000 to the credit of the interest account of the Railway, available for defraying ordinary municipal expenditures. If the productive period of the road be delayed, as has been suggested, until January, 1909,—that is, if six years of the surplus, or $3,450,000, be added to the new sinking fund of $595,000,—the total indebtedness would be reduced in 1909, when the last construction loan expires, to $7,830,000 and the annual interest charge to some $315,000. Assuming no increase in rental, this would nevertheless mean an annual surplus of $935,000. The same policy of independent financiering continued for a term of years would permit the extinction of the entire debt in 1917, and leave Cincinnati in absolute possession of the Railway and in receipt of its gross rental revenue, estimated as certainly not less than one and a quarter million dollars. If the surplus receipts of the Railway beginning in 1902 are treated as ordinary municipal revenues, and the reduction of the bonded indebtedness left to the sinking fund alone, the interest charge would nevertheless fall in 1909 to some $450,000 and the surplus increase to $800,000.

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[1] *Sixteenth Annual Report of Trustees of Sinking Fund*, 1893, p. 6.

In either case the Railway will cease to be a burden upon the taxpayer after 1902, when the annual rental becomes practically equivalent to the interest charge. It has been proposed to treat the differences meanwhile occurring—$358,000 per annum until 1898 and $268,000 thereafter until 1902—as temporary deficits to be met by the issue of special long-term bonds, redeemable from out the surplus rentals of the road.

Whether the financial future of the Railway will actually proceed along these lines is uncertain. The railway loans differ radically in security and amplitude of basis from ordinary municipal debts, and are susceptible of distinct treatment. It has been shown how, independent of a sinking fund, the Railway will become self-supporting in 1902 and largely productive thereafter. There seems reason for believing that any extension or re-award of lease will provide for an annual rental certainly not less than that received in the last quinquennial term of the present contract, and that a sale will require the assumption by the purchaser of the entire construction indebtedness. The road is thus a permanent asset, able to provide for its own maturing liabilities. This fact has led to a gradual reduction in the amount of the municipal levy for sinking fund purposes. Hesitation is naturally felt against increasing an already too heavy municipal rate for the purpose of wiping out in fewer years the indebtedness of a productive property, fully capable of eventually working out its own financial salvation. The same reason may lead to the diversion of the Railway sinking fund from the purpose originally contemplated, to the more profitable reduction of general municipal indebtedness. The wisdom of such a step, for which specific legislation would be necessary, concerns the general field of municipal finance and need not be discussed in this connection. Attention is here simply called to the desirability of a distinct Cincinnati Southern Railway sinking fund account as long as a specific item for this purpose appears in the annual tax levy and no formal steps are taken towards the immediate or ultimate employment of the fund for other purposes.

It is necessary to remember that the immediate purpose of the construction of the Railway was to fortify the commercial position of Cincinnati and not to provide a new source of municipal revenue. Friends of the project were indeed convinced of its great possibilities in this direction, but the general sentiment was, that if the commercial advantages promised could be secured by any reasonable outlay, with a possibility, perhaps, of the Railway becoming ultimately self-supporting, the investment would be profitable.

As a means of commercial defense, the road has undoubtedly accomplished this purpose. The diversion of southern trade, threatened at the time of its inception, and in partial progress during the period of construction, was checked, and Cincinnati enabled to fairly compete in the distribution of northern goods to southern markets. This influence is generally recognized as the largest result attained by the Railway, and may be so accepted. Whatever difference of opinion exists as to the positive good accomplished by the construction of the road, sentiment is one in declaring that it has prevented very much harm.

It is difficult, indeed, to point out what has been the positive contribution of the Railway to the commercial development of Cincinnati. The American city is pre-eminently the product of diverse socio-economic factors. The various influences which have effected municipal growth lie upon the surface; but it is rarely possible to indicate with any precision the contribution of each particular force. The Cincinnati Southern Railway has become so completely an organic part of the economic life of the city whose name it bears as to be almost inseparably interwoven with other factors of municipal growth. Public sentiment recognizes that it has exerted deep and far-reaching influences upon commercial and industrial interests. Few Cincinnatians would hesitate at stating this fact in much more emphatic form. Yet the most intimate acquaintance with the economic history of the city cannot fortify such a conviction by mathematical demonstration, or express the favorable influence of the Railway in exact terms. Indeed, the data requisite for precise comparison are

lacking. The Railway has been built and the qualitative results of its operation are evident. But the condition of Cincinnati without such a road is conjectural, and it is literally impossible to indicate precisely what degree of present growth would have been attained independently, at least independent of municipal construction. Any comparison with the growth or development of other cities, with a view to ascertaining the influence of this one agency, is palpably misleading. Few American cities embody the influence of factors uniform enough to make possible the application of the logical method of difference. The difficulties here indicated are heightened by the fact that the influence of the Railway has been gradual and steady rather than immediate and abrupt. Upon the projection and during the construction of the railway, visionaries and enthusiasts dreamed of a fabulous visitation of prosperity to follow its opening. But clear-headed men even then recognized that no commercial revolution would be wrought, and that the natural advantages of Cincinnati as an industrial center would be emphasized, not transformed.[1] With these facts borne clearly in mind, the purpose of the following paragraphs,—to indicate the general trend of the economic influence of the Railway, rather than to demonstrate the precise results wrought,—will be better understood.

The industrial activity of Cincinnati, as of the ordinary American city, is twofold in character, conveniently described as "productive" and "distributive." By "productive" is meant manufacturing establishments largely engaged in the conversion of raw materials. "Distributive" industries embrace so-called "jobbing" interests, or those employed in the wholesale distribution of commodities of local and other manufacture. The two activities are nowhere sharply separated, and in many industries are entirely merged. For the mere purpose of indicating the influence exerted upon each activity, the distinction however holds.

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[1] *Report on Internal Commerce of United States*, 1876: Appendix, p. 125.

The immediate influence of the Railway upon the distributive interests of Cincinnati was to open up a wide range of new territory, to provide prompter transportation and better shipping facilities, and to place freight rates upon a more equitable basis. Large sections of the South from which the city had before been cut off were practically thrown open by the traffic arrangements effected upon the completion of the Railway, as hereinafter described. In addition, a wide region, undeveloped but rich in lumber and mineral wealth, was directly penetrated. Manufacturing towns and mining settlements sprang up along the line of the road, and Chattanooga underwent transition from a village to a city. The development of this section, forced for a while, but now proceeding along slower and more normal lines, has influenced the commercial interests of Cincinnati in marked though indeterminate degree.

Immediately upon the opening of the Railway, through tariff rates were established to southern, southeastern and southwestern points as far as Havana and Texas; a system of car exchanges with railroads penetrating the territory bounded by the Mississippi, the Gulf of Mexico and the Atlantic was arranged, and Cincinnati shipments placed without break of bulk or transfer in all southern markets. The absorption of the lessee company by one great trunk line, and later association with a second, have enlarged these opportunities, and as far as access to southern territory by means of railroad transportation is concerned, the present facilities of Cincinnati shippers are unrivaled.

Prior to 1880, freight rates between Cincinnati and competitive points in the South were fixed by adding an arbitrary charge to the rate between Louisville and such points. The tariff adopted upon the opening of the Railway was upon the basis that rates from Cincinnati to Chattanooga and the southeast, or "Atlanta territory," should be the same as from Louisville to such points. A protracted rate war resulted, ending in the final recognition of the principle urged by Cincinnati interests. The completion of the Railway effected

a less striking reduction in distance between Cincinnati and southwestern, or "Montgomery" territory, and in consequence a less marked reduction in freight rates. The change has, however, been material, and has been subsequently increased by the persistent efforts of the commercial bodies of Cincinnati. The extent of these modifications as compared with normal reduction in tariffs is indicated in the following statement:

	PER 100 POUNDS.													Per Barrel.	
Cincinnati to: *Chattanooga, Tenn.*	1st Class	2nd Class	3rd Class	4th Class	5th Class	6th Class	A Class	B Class	C Class	D Class	E Class	F Class	G Class	H Class	
(a) Prior to opening Cin. South'n Ry.	.95	.83	.72	.53	.45	.39	.43	.39	.37	.33	.38	.66	1.34	.53	
(b) In effect Sept. 1, 1880	.75	.66	.58	.41	.35	.30	.36	.31	.30	.26	.30	.52	1.12	.41	
(c) In effect Jan. 1, 1882	.67	.60	.53	.46	.39	.32	.24	.33	.30	.28	.38	.58	1.00	.45	
(d) In effect Jan. 1, 1892	.76	.65	.57	.47	.40	.30	.20	.26	.23	.19	.34	.38	—	.33	
Atlanta, Ga.															
(a) Prior to opening of road	1.30	1.12	.94	.76	.63	.49	.51	.55	.56	.51	.55	1.02	1.88	.76	
(b) In effect Sept. 1, 1880	1.10	.95	.80	.64	.53	.40	.44	.47	.49	.44	.47	.88	1.75	.64	
(c) In effect Jan. 1, 1882	.95	.85	.75	.65	.55	.45	.34	.43	.39	.36	.52	.76	1.31	.61	
(d) In effect Jan. 1, 1892	1.07	.92	.81	.68	.56	.46	.28	.35	.28	.24	.48	.48	—	.33	
Columbia, S. C.															
(a) Prior to opening of road	1.30	1.12	.94	.76	.63	.49	.54	.68	.69	.64	.65	1 28	2.29	.76	
(b) In effect Sept. 1, 1880	1.10	.95	.80	.64	.53	.40	.47	.60	.52	.46	.57	1.14	2.17	.64	
(c) In effect Jan. 1, 1882	.95	.85	.75	.65	.55	.45	.36	.44	.40	.37	.58	.78	1.34	.67	
(d) In effect Jan. 1, 1892	1.08	.92	.81	.68	.56	.46	.28	.42	.35	.32	.50	.64	—	.60	
Atlantic Coast Cities Savannah, Ga., Charleston and Port Royal, S. C.															
(a) Prior to opening of road	1.54	1.21	.94	.68	.54	.45	.62	.65	.65	.60	.60	1 15	2.17	.65	
(b) In effect Sept. 1, 1880	1.46	1.10	.88	.74	.60	.51	.45	.47	.60	.55	.54	1.05	2.02	.55	
(c) In effect Jan. 1, 1882	1.12	.98	.78	.66	.53	.44	.38	.38	.35	.35	.58	.69	1.24	.62	
(d) In effect Jan. 1, 1892	.95	.80	.75	.70	.58	.46	.35	.35	.27	.23	.40	.46	—	.40	
Meridian, Miss.															
(a) Prior to opening of road	1.28	1.05	.91	.78	.54	.54	.47	.47	.47	.44	.47	.94	1.54	.64	
(b) In effect Sept. 1, 1880	1.18	.98	.87	.76	.54	.53	.44	.44	.45	.41	.44	.90	1.47	.59	
(c) In effect Jan. 1. 1882	1.15	.96	.85	.74	.51	.51	.43	.43	.43	.38	.43	.86	1.38	.46	
(d) In effect Jan. 1, 1892	1.22	1.02	.89	.75	.62	.54	.39	.41	.39	.32	.38	.66	—	.61	

If in competitive trade, the differential cost of transportation forms a net industrial advantage, the result of these reductions with reference to the commercial interests of Cincinnati has been immense. An interesting attempt has been made by the Cincinnati Freight Bureau to determine this quantitatively. Upon the reasonable basis of three hundred working days in the year, and twenty car-loads of general merchandise (numbered classes) and one hundred car-loads of heavy freight (lettered classes) forwarded by all routes to southeastern territory, and the same amount shipped to the southwest,—it is calculated that the savings effected by the operations of the Railway from 1880 to 1892 aggregate $11,046,000. Any exact determination of this kind must of course be taken approximately. In the main, however, the final proposition that "there should be entered to the credit of the Cincinnati Southern Railway an unrecorded dividend of more than ten millions of dollars"[1] seems valid and reasonable.

The influence of the Railway upon the productive interests of Cincinnati is more intricate. The opening of an undeveloped country, rich in natural wealth, cheapened the cost and enlarged the local supply of raw materials, such as iron, coal, lumber, stone, tan-bark and live stock. In the line of special manufactures, a market for which was already established, the cost of production has been lowered and the demand enlarged intensively. In the manufacture of general products, the reduction has not only made possible larger purchases by distributing agents, but given Cincinnati goods a footing in markets where advantages of proximity or natural power had before rendered competition impossible. A comparison of the annual production of important commodities for the years 1879-80 and 1888-90, that is, immediately before, and a decade after the completion of the Railway, shows striking changes:[2]

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[1] J. J. Hooker, *Discrimination in Freight Rates.* Published by the Cincinnati Freight Bureau, 1892.

[2] *Forty-first and Forty-second Annual Report of the Cincinnati Chamber of Commerce*, p. 66.

INDUSTRY.	1879–80.	1889–90.	INCREASE. per cent.
Iron (manufactures)..	$19,368,719	$30,422,139	57
Liquors.....	26,647,000	29,580,828	11
Clothing.....	18,695,844	28,631,789	53
Articles of Food.....	20,668,153	26,092,023	26
Productions from Wood.....	14,204,244	22,195,450	56
Leather and Leather Goods.....	11,338,735	15,118,040	33
Carriages, Buggies, etc.....	6,548,690	13,069,140	99
Metals other than iron	5,478,567	8,265,122	50
Printing and Publishing	4,401,735	7,039,489	59
Drugs, Chemicals.....	4,425,522	6,260,085	41
Paper and kindred goods	4,416,326	6,202,980	40
Stone and Earthern manufacture.....	2,559,510	5,510,354	115
Fine Arts.....	341,700	532,261	55
Bookbinding and Blank Books.....	826,827	1,457,150	76
Miscellaneous Industries	8,181,206	15,480,516	89

Such a comparison, it is hardly necessary to add, possesses only a general and incidental value in this connection. No means are unfortunately available for showing in how far the pronounced increases are due to the building of the Railway. Colonel Sidney B. Maxwell, for some twenty years Superintendent of the Cincinnati Chamber of Commerce, and intimately acquainted with the commercial history of the city, declares that such an attempt is "like undertaking to show how far a man with strong, vigorous physical life owes it to systematic physical exercise," and adds, in explanation, that "so many influences have been at work to encourage development that it is impossible to indicate just how much vigor may be traceable to each industrial agency employed."

This is the testimony of all who have given thought or attention to the subject. The Railway is recognized as clearly the most fundamental and persistent factor that has contributed to the economic development of Cincinnati, and it is strongly believed that every branch of industry in the city has been more or less stimulated by its construction and developed by its operation. The complexity of industrial development renders any more precise statement impracticable.

It has been claimed that the construction of the Cincinnati Southern Railway has made an impression for good upon the transportation interests of the city beyond anything revealed in the amount of business transacted by the one road. This points to the most important of the influences that have followed indirectly from the completion of the Railway,—the attraction of other railroad systems to Cincinnati with the growth of the city as a distributing center. The Louisville, Cincinnati and Lexington Railroad, or the "Louisville Short Line," was early acquired by the Louisville and Nashville Railroad, and Cincinnati made the practical terminus of this entire system. Similarly, the acquisition of the Kentucky Central Railroad by the same system, and its extension to Knoxville, opened another route to Eastern Tennessee and Kentucky. The more recent extension of the Chesapeake and Ohio Railway, through the completion of the Maysville and Big Sandy Railroad, is thought to have been influenced by the operation of the Cincinnati Southern Railway,[1] although this is specifically denied by President Ingalls.

Finally, to be noted is the decided impress left by the construction and operation of the Railway upon the general public spirit of Cincinnati. This has manifested itself in the main along industrial lines. The Railway has never been a factor in municipal politics and has exerted no perceptible influence in this direction. The completion of a great work undertaken by public enterprise and prosecuted in face of almost insuperable obstacles has, however, infused a certain

[1] *Cf.* "*Cincinnati*," by Mr. Murat Halsted in *Cosmopolitan Magazine*, October, 1891.

life and vigor into the economic activity of the city. It has developed a subtle consciousness of latent possibilities, strengthened industrial enterprise, and led to a larger use of new facilities than would otherwise have occurred. Commenting upon this, Col. S. B. Maxwell, whose testimony has already been cited, writes: "It is the revelation of an epoch in the business life of Cincinnati. Of course we cannot say that it is all traceable to the building of the Southern Railroad, but the stimulation growing out of the consummation of that great project has had more to do with it than anything else. Its influence permeated every walk of business life; it opened up to our people new possibilities; it created new ambitions; it set causes in motion which determined that Cincinnati was to become the great interior point of exchange between the North and the South. I undertake to say that there is not a department of business which has not felt the stimulation of these new conditions. It is not confined to such as have had to do directly with the South, but has reached all branches, just as vigorous bodily health gives tone and strength to each individual organ. I think there is no one who has given the subject careful consideration that does not know that a large part of the growth in business, in vigor and in faith which has been witnessed here in the past ten or twenty years is to be placed to the credit of this great railway to the South. The building of the road by the city was attended with hazard, but it would have been much more hazardous not to have built it. It increased taxation, but it secured a perpetual harvest of strength, vigor and enterprise. Great expenditures are sometimes the most judicious economy. It is wastefulness that should be avoided, not outlay. This is a very different city from what it was twenty years ago. It has passed from a provincial position to a metropolitan one; from circumscribed conditions, which, without early change, must have made themselves more dangerously felt in the future than in the past, to those encouraging aggressiveness and conquest, and from uncertainty to abundant faith in its resources and outcome."

A word as to the future of the Railway seems necessary. It will probably remain in the possession of Cincinnati for many years to come. Outright sale, even if desired, would require, as has been stated, additional enabling legislation in Ohio, Tennessee, and Kentucky, the unanimous consent of bondholders, and the ratification of electors of Cincinnati. The possibility of combined action is slight. The next few years, however, will probably witness some change in the present status of the Railway. It is generally recognized that a short-term lease fails to secure for the city the largest commercial benefits, in that it prevents the lessees from making the expenditures and insuring the obligations involved in the development of a great trunk line. Any forecast is hazardous; yet public sentiment appears to be crystallizing in favor of some such form as that recommended by the commercial bodies of the city in 1889,—a perpetual or long-term lease at an annual rental, not less than that paid during the last term of the present lease, and with specific provisions that when gross earnings exceed a certain sum per mile, a fixed per centum of the excess shall revert to the city as increased capital; furthermore, that freight charges between Cincinnati and specified southern points should never exceed a certain per centum of the rates between New York and these points.

Whatever action may be taken, there seems reason for viewing the future with some degree of confidence. Properly administered, the Railway can work an entire revolution in the finances of Cincinnati. Very manifest is a growing tendency in public opinion to appreciate the sacrifices involved in its construction, its vital connection with the material interests of the city, and the necessity for exercising the strictest watchfulness with respect to its control and disposition. A recent judicial decision retains the Board of Trustees in charge of the Railway as long as the city remains its beneficial owner, the court here declaring that "a railroad several hundred miles in length, costing millions of dollars and which, under some arrangement, may probably remain the property of the city for all time to come, stands on a very

different footing from the mere erection of a courthouse or an armory"[1] by specially appointed commissioners, whose office clearly and expressly terminates with the completion of the structure. The character of the Board of Trustees, its clearly defined powers, the responsibility of individual members to the appointing court, the probable necessity of further ratification by a second municipal board, justify the belief that the ultimate disposition of the Railway will be as free from undue influences as were its construction and initial lease.

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[1] City of Cincinnati *vs.* Trustees of Cincinnati Southern Railway and the Cincinnati, New Orleans and Texas Pacific Railway Company, Lessee; in Circuit Court of Hamilton County, December 19, 1891.

APPENDIX.

A.

AN ACT RELATING TO CITIES OF THE FIRST CLASS HAVING A POPULATION EXCEEDING ONE HUNDRED AND FIFTY THOUSAND INHABITANTS.[1]

(8307) SEC. 1. *Be it enacted by the General Assembly of the State of Ohio,* That whenever, in any city of the first class having a population exceeding one hundred and fifty thousand inhabitants, the city council thereof shall, by a resolution passed by a majority of the members elected thereto, declare it to be essential to the interest of such city that a line of railway, to be named in said resolution, should be provided between termini designated therein, one of which shall be such city, it shall be lawful for a board of trustees, appointed as herein provided, and they are hereby authorized to borrow, as a fund for that purpose, not to exceed the sum of ten millions of dollars, and to issue bonds therefor in the name of said city, under the corporate seal thereof, bearing interest at a rate not to exceed seven and three-tenths per centum per annum, payable at such times and places, and in such sums, as shall be deemed best by said board. Said bonds shall be signed by the president of said board, and attested by the city auditor, who shall keep a register of the same, and shall be secured by a mortgage on the line of railway and its net income, and by the pledge of the faith of the city, and a tax, which it shall be the duty of the council thereof annually to levy, sufficient, with said net income, to pay the interest and provide a sinking fund for the final redemption of said bonds; provided that no money shall be borrowed on bonds issued until after the question of providing the line of railway specified in the resolution shall be submitted to a vote of the qualified electors of said city, at a specified election to be ordered by the city council thereof, of which not less than twenty days notice shall be given in the daily papers of the city; and further provided, that a majority of said electors, voting at such election, shall decide in favor of said line of railway. The returns of said election shall be made to the city clerk, and be by him laid before the city council, who shall declare the result by a resolution. The bonds issued under the authority of this section shall not be sold or disposed of for less than their par value.

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[1] Passed and took effect May 4, 1869: 66 Ohio Laws, p. 80.

(8308) SEC. 2. If a majority of the votes cast at said election shall be in favor of providing the line of railway as specified in the first section, it shall be the duty of the solicitor forthwith to file a petition in the superior court of said city, or, if there be no superior court, then in the court of common pleas of the county in which said city is situate, praying that the judges thereof will appoint five trustees, to be called the trustees of ——— railway (the blank to be filled with the name given to the railway in the resolution); and it shall be the duty of said judges to make the appointment, and to enter the same on the minutes of the court. They shall enter into bond to the city in such sum as the court may direct, with one or more sufficient sureties, to be appointed (approved) by the court, conditioned for the faithful discharge of their duties. The bond so taken shall be deposited with the treasurer of the corporation for safekeeping.

(8309) SEC. 3. The said trustees and their successors shall be the trustees of the said fund, and shall have the control and disbursement of the same. They shall expend said fund in procuring the right to construct, and in constructing a single or double track railway, with all the usual appendages, including a line of telegraph between the termini specified in the said resolution; and for the purposes aforesaid shall have power and capacity to make contracts, appoint, employ and pay officers and agents, and to acquire, hold and possess all the necessary real and personal property and franchises, either in this state or in any other state into which said line of railway may extend. They shall also have power to receive donations of land, money, bonds and other personal property, and to dispose of the same in aid of said fund.

(8310) SEC. 4. The said trustees shall form a board, and shall choose one of their number president, who shall also be the acting trustee, with such power as the board may by resolution from time to time confer upon him. A majority of said trustees shall constitute a quorum, and shall hold regular meetings for the transaction of business, at their office in the city under whose action they are appointed, but they may adjourn from time to time to meet at any time and place they may think proper. They shall keep a record of their proceedings, and they shall cause to be kept a full and accurate account of their receipts and disbursements, and make a report of the same to the city auditor annually, and whenever requested by a resolution of the city council. No money shall be drawn from said fund but upon the order of said board, except their own compensation, which shall be paid out of the same upon the allowance of the court appointing them, and shall be proportioned according to their respective services.

(8311) SEC. 5. Said trustees shall have power to take such security from any officer, agent or contractor, chosen, appointed or employed by them, as they shall deem advisable. They shall not become surety for any such officer, agent or contractor, or be interested directly or indirectly in any contract concerning said railway. They shall be responsible only for their own acts.

(8312) SEC. 6. Whenever the city solicitor of any city under whose action a board of trustees has been appointed as herein provided, shall have reason to believe that any one of said trustees has failed in the faithful performance of his trust, it shall be his duty to apply to the court that appointed said trustee, by petition, praying that such trustee be removed, and another appointed in his place; and when a vacancy shall occur in said board from any other cause, it shall be filled in like manner. If the said city solicitor shall fail to make application in either of the foregoing cases, after request of any holder of the bonds issued by said trustees or by a taxpayer of the corporation, such bondholder or taxpayer may file a petition in his own name on behalf of the holders of such bonds for like relief, in any court having jusisdiction, and if the court hearing the action shall adjudge in favor of the plaintiff, he shall be allowed as part of his costs, a reasonable compensation to his attorney.

(8313) SEC. 7. Whenever in the construction of a line of railway as herein provided, it shall be necessary to appropriate land for the foundation of the abutments or piers of any bridge across any stream within or bordering upon this state, or for any other purpose, or to appropriate any rights or franchises, proceedings shall be commenced and conducted in accordance with the act entitled "An act to provide for compensation to the owners of private property appropriated to the use of corporations," passed April 3, 1852, and the acts supplementary thereto, except that the oath and verdict of the jury and the judgment of the court shall be so varied as to suit the case.

(8314) SEC. 8. Whenever there shall be between the termini designated in any resolution passed under this act, a railroad already partially constructed, or rights of way acquired therefor, which can be adopted as part of the line provided for in said resolution, the trustees of said line may purchase the said railroad and right of way and pay for the same out of the trust fund.

SEC. 9. The said trustees shall have power, as fast as portions of the line for which they are trustees are completed, to rent or lease the right to use and operate such portions upon such terms as they may deem best; but such rights shall cease and determine on the final completion of the whole line, when the right to use and

operate the same shall be leased by them to such person or company, as will conform to the terms and conditions which shall be fixed and provided by the council of the city by which the line of railroad is owned.

(8315) SEC. 10. The city council of any city passing a resolution as provided in the first section, may appropriate and pay to the said trustees, out of the general fund of said city, such sum as may be necessary for defraying the expenses of the election, and said sum shall be repaid out of said trust fund when raised.

SEC. 11. This act shall take effect on its passage.

B.[1]

ANN ARBOR, MICHIGAN, April 17, 1869.

A. E. MACOMBER, ESQ.

Dear Sir:—The question you propose regarding the power of cities in Ohio to construct works of internal improvement, with legislative permission, seems to me one which the judicial decisions of your State have already settled. An unbroken series of those decisions has declared that, in the absence of any express constitutional inhibition, it is competent for the legislative authority of the State to authorize municipalities to lend moneys under the taxing power and appropriate the same in aid of railways and other great thoroughfares. This would only be permissible on the ground that the municipalities have an interest in the construction of such works so direct and immediate as to render it proper that the sovereign power of taxation should be exerted by them for the purpose, as it might be for the highways entirely within their limits. Hitherto the power has been employed in aid of corporations, and the municipalities have either taken stock in such corporations, or have made to them loans of credit or money. Your revised constitution forbids this by providing that "The General Assembly shall never authorize any county, city, town, or township, by vote of its citizens, or otherwise, to become a stockholder in any joint-stock company, corporation or association whatever, or to raise money for, or loan its credit to, or in aid of any such company, corporation or association."

This provision, however, only prohibits the municipalities giving aid to works of public improvement in the modes before resorted to,

[1] FURGUSON RAILWAY ACT. *Views of Press, Address of Committees, Action of Board of Trade and Chamber of Commerce*, etc. (Cincinnati, 1872: published by the Board of Trustees), p. 64.

and there is nothing in it to prevent, or that appears designed to prevent, the local authorities from levying taxes for the construction of railroads when their own agencies are employed for the purpose. Indeed, it was always felt that there were objections in principle to cities, town and counties becoming stockholders in corporations, or loaning money or credit to corporations, in order to secure the construction of works of public importance to the locality, which did not exist where the municipality took the construction of the work into its own hands, as it would have done if it had been a street or any other purely local work. To allow the municipal authorities to give aid to private corporations in order to secure the construction of a public work was unquestionably to introduce a new feature into the system of local self-government, while to authorize the local authorities to construct the same work themselves would be in entire harmony with the established principles and usages. It is very clear, I think, under the decisions of your Supreme Court, that prior to the new constitution it would have been entirely competent for the legislature to permit the local authorities to levy taxes for the construction of railroads to be managed and controlled by their own officers or agents, and it seems equally clear that the clause above quoted from the constitution does not take away this power. You inquire if it would be otherwise if the road when constructed was to extend beyond the limits of the State. I think not, conceding, as your courts have repeatedly declared, that the municipalities may be allowed to expend taxes on roads outside their own limits. I know nothing to confine the expenditures to the limits of the State. The local importance of the road which justifies an exercise of the power of taxation to construct does not depend upon the question whether it is entirely within the State or not, but upon the local facilities it affords to travel and commerce.

Very truly yours,

(Signed) T. M. Cooley.

C.

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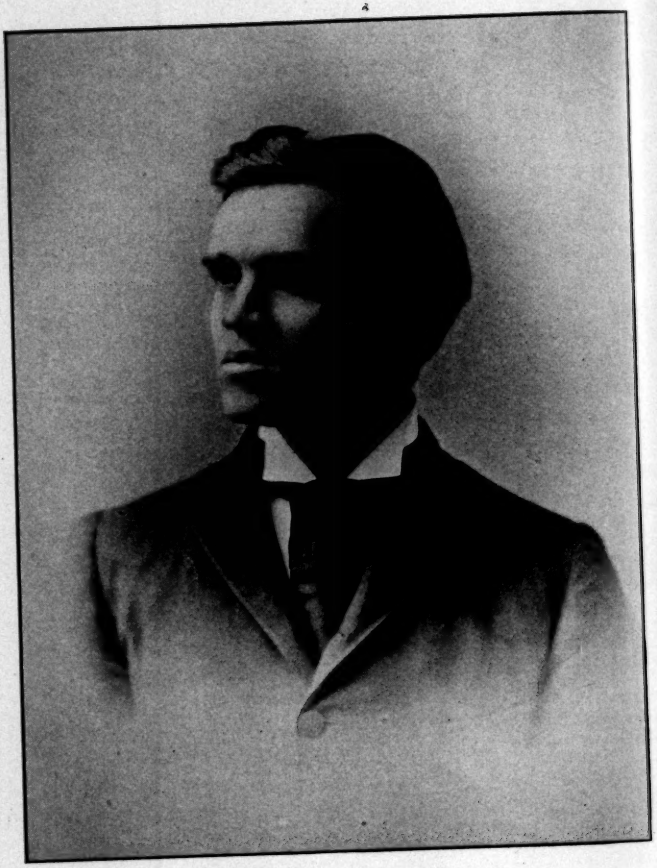

LUCIUS S. MERRIAM

1867-1893

A MEMORIAL OF

LUCIUS S. MERRIAM, Ph. D. (J. H. U.)

By J. H. Hollander and others.

The first intelligence of Dr. Merriam's probable drowning in Lake Cayuga came to the Johns Hopkins University in a brief Ithaca despatch in the Baltimore papers of Monday morning, November 20, 1893. A telegram of inquiry was at once sent by Dr. Sidney Sherwood to Mr. T. N. Carver, Fellow in Political Economy in Cornell University and a recent member of the Department of History and Politics in Johns Hopkins University. Late in the same afternoon, answer was received definitely confirming the report. Letters from Mr. Carver to various members of the Department soon added the following details of the sad occurrence:

On Saturday afternoon at about three o'clock, Dr. Merriam accompanied by Miss Yeargin, a member of the Junior class, secured a double-pointed rowboat for the afternoon, expecting to return before six o'clock. A stiff breeze was blowing over the lake, but not enough to make rowing particularly dangerous or unpleasant. The boatman, however, advised them, it is said, to keep near the west shore where the water was smoother. At half-past three they were seen by a fisherman going north, in the middle of the lake, a half-mile beyond the lighthouse. From this time nothing definite could be learned of their movements until late in the evening, when a boat, apparently empty, was sighted, drifting about one hundred and fifty feet off shore, at a point several miles lower down the lake. Sunday morning, the empty boat was found on the east shore, not far from where last seen, half full of water, with one oar still attached and the other lying near by. A searching party was at once organized, a steamer

chartered, and several hours spent upon the lake, but no further trace of the missing parties could be found. Late Sunday evening, a fisherman brought to President Schurman's residence an overcoat and a pair of gloves, found ashore at a point midway between where the boat was discovered and the head of the lake. The coat bore mark of a Baltimore firm, and was readily identified as the property of Dr. Merriam, thus confirming the worst fears hitherto entertained. Nothing is known of the manner in which the lost persons met their fate. The fact that the boat when found was not overturned, and but half full of water, would indicate that the occupants had attempted to change places, and while standing had been pitched over the side, the boat immediately righting itself. Neither body has, up to the present time, been recovered.

Dr. Merriam's loss brought general regret to the Johns Hopkins University, and keen sorrow to the Department of History and Politics, where his memory as student, as University Scholar and as Fellow was still warm and vivid. Formal announcement of his death was made at a meeting of the Historical Seminary on Thursday night, November 23. The following memorial of his work in Baltimore was read by Mr. J. H. Hollander, Fellow in Economics, and some further remarks were made by Professor H. B. Adams, Dr. S. Sherwood, and Dr. D. I. Green. Other personal tributes are appended.

In the November number of the *Annals of the American Academy of Political and Social Science*, still lying fresh-cut upon the table, appears, under the caption "Cornell University," a brief note whose modest phrase gives strong suggestion of its inspiration. It reads: "Dr. Lucius Salisbury Merriam has been appointed Instructor in Political Economy at Cornell University. Dr. Merriam was born at Cicero, Onondaga county, New York, on January 20, 1867. His early education was obtained at the High School at Chattanooga, Tennessee. In 1885 he entered Vanderbilt Uni-

versity, from which he graduated with the degree of B. S. in 1889. During the year 1889-90, Mr. Merriam held a fellowship at Vanderbilt; he then entered Johns Hopkins University, holding a fellowship in Political Economy during the year 1892-93. Last June he received the degree of Ph. D. from the University. Dr. Merriam is a member of the American Economic Association. His published writings are:

Social Legislation in the United States in 1889 *and* 1890. Economic Review, April, 1891.

The Appointment of a Receiver for the City of Nashville in 1869. American Law Review, May-June, 1891.

The Theory of Final Utility in its Relation to the Standard of Deferred Payments. Annals of the American Academy, January, 1893.

History of Higher Education in Tennessee. United States Bureau of Education."

A few days since, the words were bright with a message of academic distinction and a promise of rare usefulness. Now every line blurs with pale letters, and "Died, November 18, 1893" must be added, putting a sad finis to the very introduction of a life-history, and bringing the greater pain that comes

> "* * * * when immature death
> Beckons too early the guest
> From the half-tried banquet of life
> Young, in the bloom of his days."

There is nothing of the hollowness ordinarily attendant upon a spoken memorial, it seems to me, to recall Merriam, his work and his personality as seen by a fellow-student, at this time and in this place. To some of us, he has been present either in imparted stimulus or in sense of loss since the opening of the term. To a larger circle, his mere name must bring to mind the high native power, the earnest scholarship and the genial companionship of the man. It is also as a loyal Hopkinsian that Merriam appeals to us. It was perhaps because he availed himself so splendidly of the methods and spirit of the University, and of this department,

that he keenly appreciated their significance. He often spoke of this while in Baltimore, and in his last letter, written ten days before his death, even when he had fairly entered upon the most congenial work of his life, he says: "My thoughts very often run on the Hopkins. Despite its faults, I do not believe there is an institution like it in the country. I find myself frequently longing to be back in the old seminary room." And from what he says in another connection of "my last year's seat in the corner of the table, right under the lecturer's nose," it is easy to see in what spirit was drawn the mental picture he cherished.

Merriam came to Baltimore in the fall of 1890. He had held a fellowship in political economy the year preceding at Vanderbilt, where, in addition to his special work, he had taught several undergraduate classes. A twelvemonth activity of this kind left him eager for a broader outlook, and perhaps at the suggestion of Professor E. W. Bemis, himself a Hopkins man and a personal friend under whom Merriam had begun his work in economics, he decided to come to Johns Hopkins for a course of advanced work. He found the atmosphere of the place to his liking, I think, from the very outset. Political Economy, History, and Jurisprudence formed his combination of studies, but he was deeply interested in all three, and recognized their organic relationship and interdependence, even after he had begun to specialize in the first.

It was not, however, until the latter part of the term that Merriam emerged from routine study and reading, with a Seminary paper on "The Appointment of a Receiver for Nashville." He had probably sketched the paper, or, at least, gathered materials for it while at Vanderbilt. But the elaboration was, doubtless, due to Hopkins stimulus, and the final results were, I think, first presented at this board. The study is a succinct account of a curious and instructive incident in American municipal administration, and later won a place in the *American Law Review* for May-June, 1891.

The first original work done by Merriam of a distinctly

economic character was undertaken in that same winter at the request of Professor Richard T. Ely, with whom he had from the first come into close personal relationship, and by whom the natural inclination of his mind for original investigation was markedly developed. This "Report on Social Legislation in the United States for 1889 and 1890" occupied him during the entire second half of the first semester. It was published with an introduction by Professor Ely in the *Economic Review* for April, 1891. As originally contemplated, Merriam's share in the work was to have been the mere collection of material. The manner in which the paper as a whole came to bear his name is explained in the first paragraph of Professor Ely's Introduction: "Perhaps it is not often that a professor finds the work of a student embarrassing by reason of its excellence. I have, however, had that experience in the preparation of the present article. When the editor of the *Economic Review* requested me to furnish him with an article on Social Legislation in the United States, I requested Mr. L. S. Merriam, a member of my graduate class in economics and of my economic seminary, to assist me in the laborious work of getting together the provisions of recent American legislatures. It was my intention to use the material in the preparation of the article, giving him credit for the part of the work which belonged to him. Mr. Merriam has, however, performed his work so excellently that I do not feel like making any changes in the paper which he has handed, and he has left me nothing to do except add a few words in introduction."

In the spring of 1891, at Dr. Adams' suggestion, Merriam took up a partially written history of Higher Education in Tennessee, designed for publication in the United States Bureau of Education series of monographs. He devoted the greater part of the summer to its completion, bringing the study back to Baltimore, I think, in practically finished form in October, 1891. A chapter read before the Seminary in the early part of the term indicated a strong grasp and a vigorous outspoken treatment of the subject, and the mono-

graph, which is now in type for an edition of twenty thousand copies, is to be ranked as Merriam's largest and most useful, though perhaps not his most characteristic work.

Immediately after the Christmas recess, Merriam was appointed University Scholar in Political Economy, and from this time on he began to concentrate upon his major subject. His special work was along two lines, the first concerning federal grants to railroads, which he hoped ultimately would serve as a doctor's dissertation; the second, a critical estimate of the economic system of Sir James Steuart, prepared for the Economic Conference, and designed as a chapter in a co-operative volume upon the English economists before Adam Smith. Without lagging in his scheduled courses, he worked steadily upon these subjects during the remainder of the term and through a large part of the summer. I think he had about finished the legal aspect of federal grants to transportation companies, the point of departure and perhaps the most difficult part of his inquiry. In his economic critique, he had gone through Steuart's prolix work in careful detail, had made a preliminary report to the Conference, and was about to begin working extensive notes into library form.

It was in the latter part of this term, when, with Dr. Bemis' departure to Chicago, a flattering call came to Merriam from his *alma mater*, that some of us first learned in what finer mould he was cast. Dr. Adams will perhaps speak of the circumstances of the invitation and its final declination. The decision once made, I do not think Merriam ever really regretted it. He rarely referred to the matter, but once in a while, as when the appointment to the Fellowship in Economics came, or in the following year, when he could not but feel his own mental expansion, he made mention of it, always with a note of satisfaction that he had chosen as he had, despite a full realization of the material sacrifice involved.

The first course of lectures given by Professor John B. Clark at this University in the autumn of 1892, I think

marked a distinct period in Merriam's intellectual development. Upon a mind as original and inclined to abstract thought as his own, the fine analysis and pure theory of the course, supplemented throughout by a personal contact that soon ripened into warm friendship with the lecturer, could not fail to exert the strongest influence. It left Merriam fairly impregnated with the newer subjective economics, in perfect mastery of the system that had been expounded, and tingling to work out its applications in new fields. He, as well as those about him, henceforth recognized the peculiar fitness of his mind for economic theory, and although he continued, in a sense of something akin to duty, the work in practical economics already begun, there was a certain mental drudgery henceforth involved therein.

It was not long, however, before a chance offered to try his wings in theoretic flight. In the *Annals of the American Academy* for November, 1892, appeared a paper on "The Standard of Deferred Payments," by Professor Edward A. Ross, then of Cornell, now of Leland Stanford Jr. University, which undertook to apply the subjective theory of value to the solution of the monetary problem. To Merriam, almost bubbling over, as I have said, with the newer doctrines, the argument appeared in a measure inadequate and defective. Close personal intimacy with Professor Ross lent additional zest to the possibility of a correction. Accordingly he wrote to the editor of the journal and was promptly encouraged to undertake a criticism. Then followed a fortnight of intense mental effort, which he afterwards laughingly described as "two weeks of thinking, with little food, less sleep, and no lectures." He set to work and literally "thought out" the paper. Brief suggestive notes were jotted upon small cards which he constantly carried with him, and frequently corrected and supplemented. Not until the paper was perfected in almost every detail was the whole dictated to a copyist. Gradually the bare criticism originally planned had grown into a splendid constructive study of the relation of the theory of final utility to money

in general and the standard of deferred payments in particular. In this form it appeared in the *Annals* for January, 1893, showing in every line critical reading, fine thought and perfect analysis. The study attracted considerable attention, and I think can with perfect moderation be ranked among the notable theoretic contributions of the year. It was issued in separate form by the Academy, and was accepted by this University, in June, 1893, as a doctor's dissertation.

The remainder of the year Merriam devoted to a broad preparation for the final examinations, reading widely and critically, incidentally gathering material for several subjects that he hoped to develop during the summer. He left Baltimore immediately after graduation, but returned and spent the early part of the vacation here at work. In the interval I had left the city, and did not hear from him until his final location at Ithaca. Then he wrote with keen pleasure of the work before him. He was to give three courses during the year. These are described in a supplementary announcement (September, 1893) of the Department of Political Science in Cornell University as: 1. Political Economy; elementary course. Principles and History of Political Economy. 2. (a) Money, credit and banking; fall term. (b) Monetary system and revenue of the United States. History of federal financial legislation; winter and spring terms. 3. (a) Socialism and communism; fall term. (b) Economics of agriculture; winter term. Methods of industrial remuneration; the wages question, profit-sharing, co-operation. Two of these three courses were identically in the line of his own studies, and his only regret was that there was not one less for the first year, in order that he might concentrate more decidedly upon the remaining. His work was, however, thoroughly congenial, and in his last letter he wrote in a vein of surprised elation at the less and less difficulty he experienced in talking to his classes, and of his present determination never to write out lectures. He had just received Professor Ross's reply to his criticism, and he expressed his intention, sooner or later, to answer it.

It would be pleasant to turn from Merriam the economist to Merriam the man. But even were there time, mere student intimacy might well pause at the analysis of a complex personality. Perhaps, indeed, there is no need of this. Merriam's cheerful willingness, his invariable good humor, his fine modesty and his sturdy manhood revealed themselves upon first contact. It needed close touch to learn the spotless purity, the supreme honesty of his character, and above all, the strong passion for truth,—in belief, in knowledge, in activity,—that pervaded and formed the keynote to his life. Standing now as he does in the softened glow of cherished memory, he appeals first as a friend, then as a scholar.

There is thus something almost pathetic in a survey of Merriam's life-work. It is pre-eminently the threshold. His university career, distinguished as it was, was yet, in an unusual degree, a period of preparation. Men with much less have attempted far more than he. For three, indeed for eight, years Merriam was simply getting ready. But at last he was fairly equipped, and graduation seemed literally "a commencement" of what might have been,—what would have been,—a brilliant, noble life. So it is that every interpretation of the blow that has fallen, ends in a muttered "inscrutable," and all consolation summates in dull resignation. And it is only in the permanence of mental force and spiritual beauty that light gleams. For here there is not annihilation. No, every fibre thrills a ringing protest!

Professor EDWARD W. BEMIS, *University of Chicago.*

I first became acquainted with Dr. Merriam during his senior year at Vanderbilt University, when, in the year 1887-88, he took some of my work in constitutional history and political economy. This work he continued as a graduate student during the following year with remarkable success. His work at Vanderbilt in the collegiate department had already made him distinguished as the best thinker and scholar that had ever studied there, and he received a fellow-

ship during his year of graduate study, and in return for it did some teaching in the English department. The success in this and in his graduate work, joined to his manly bearing and in every way agreeable personality, made him the unanimous choice of the faculty for my successor, when, after he had studied two more years as a graduate student at the Johns Hopkins, I resigned at Vanderbilt in June, 1892. But the fellowship he hoped to receive at Baltimore, together with an unusual willingness to sacrifice present income for a better preparation, induced him to remain at the Johns Hopkins University. Our relations were naturally very intimate, for at Vanderbilt he was in conference with me over his work in my rooms part of two evenings weekly, and visits and correspondence kept up the acquaintance to the time of his sad death. I can truly say that he was the most promising economist of his age that I have ever known. He was especially strong in the theoretical lines which require the deep thought for which he was always marked. His personal character likewise was in every respect above criticism. He was one of the most conscientious, manly men in his work, his living, and in his relations with those about him, while his ideals were of the highest. His premature death must serve as a convincing proof that if there be such a thing as eternal justice,—and who can doubt it!—there must be another life to right the lack of reward proportionate to service in this.

Professor RICHARD T. ELY, *University of Wisconsin.*

Dr. Merriam impressed me very favorably when I first met him, and I was never disappointed in him. On the contrary, the favorable impression which he made was strengthened as I came to know him better. His intellectual gifts, his acquisitions and his high purpose gave assurance of a distinguished future. His death was a loss not only to his relatives and friends, but to the science of economics, to the advancement of which he assuredly would have contributed had he lived. An incident showing both his pains-

taking work and his gifts may not be out of place. While I was in Baltimore, I was requested to prepare a sketch of recent social legislation in the United States for the *Economic Review*. I asked Dr. Merriam to assist me in gathering together the facts. He did his work so well that when he handed his report to me there was really nothing to be added, and I sent it in over his name. His article was favorably mentioned by all who commented on it. I had expected only the raw material for an article, but instead received a finished essay.

Professor H. B. ADAMS, *Johns Hopkins University.*

I had some correspondence with Merriam in the early part of last summer vacation regarding his forthcoming "History of Higher Education in Tennessee." He was then staying at Princeton, Massachusetts, and we exchanged proof-sheets of his work, which will be published in the near future and distributed by the U. S. Bureau of Education. If I am not greatly mistaken, Merriam's contribution to American educational history will attract wide attention and prove of great practical value to the State of Tennessee and to the whole South. He undertook this laborious task which Professors Baskerville and Bemis, by reason of other engagements, were unable to accomplish. In completing this work Merriam showed his characteristic energy and his powers of critical investigation. The finished report will be his largest and, I think, his most valuable and enduring work. It will be issued by the U. S. Government, in an edition of 20,000 copies, and will be distributed throughout the whole country.

In this connection it is interesting to note that Merriam's doctor's dissertation is the shortest one ever known in the Department of History and Politics at the Johns Hopkins University. Indeed, as printed, his thesis contains fewer pages than our law of publication requires. Merriam might have used his larger work to serve an academic purpose, but, by my advice, he submitted the shorter paper on "The

Theory of Final Utility in its Relation to Money and the Standard of Deferred Payments." If any objection had been raised against the acceptance of this brief essay, I should have read to our Board of University Examiners a letter from Professor John B. Clark, the economist who so profoundly influenced Merriam's intellectual development in the fall of 1892. Professor Clark wrote to me that it would be very easy to produce a thesis superior in quantity to that of Merriam, but very difficult to excel it in quality. The dissertation was accepted by our University Board without a word of opposition.

Merriam showed in 1891 of what stuff he was made. He then deliberately declined the professorship of economics, left vacant in Vanderbilt University by Dr. Edward W. Bemis, who was called to Chicago. Although Merriam had no assurance whatever that he could win a Fellowship in Economics at the Johns Hopkins University, he nevertheless preferred to remain here and complete his three years' course of graduate study. He won a Fellowship in 1892, and passed a brilliant examination for the doctor's degree in May, 1893.

About this time he was asked to be a candidate for two academic positions. The first place was at Smith College, Northampton, Massachusetts, where he was sought as the successor of Professor John B. Clark. The second place was the chair of economics in the State University of Tennessee. For reasons personal and financial, he was not appointed to either of these two positions. Although greatly disappointed at first, he finally obtained exactly the opportunity for which he was fitted. He was invited to teach pure economics in Cornell University.

Although his life was suddenly cut short, he doubtless had made as deep an impression upon his pupils in Ithaca as he did upon his friends and fellow-students in Baltimore. He will be remembered by all who knew him as a young man of noble character, fine scholarship and high aims. His devotion to truth for its own sake was perhaps his most conspic-

uous trait. The very face of the man indicates his openness of mind and his keen spirit of inquiry.

I remember Merriam also as a man of beautiful physique and extraordinary alertness of body as well as of mind. I saw him occasionally in the Hopkins gymnasium and always admired him as a modern athlete. He reminded me of one of those types of Grecian youth still seen in plastic art. Like a fallen statue, Merriam's death may suggest to his student contemporaries an immortal ideal. At the funeral of Dr. Friedrich Matz, a young and brilliant archaeologist who died in Berlin in the winter of 1874, Professor Ernst Curtius compared a broken life to a Greek torso. To the eye of an archaeologist, he said, the ideal is sometimes visible in the merest fragment; and after all a mere torso is the longest human life when measured by years, but well-rounded and complete is that short life which has been resolutely directed toward some high end.

The young woman who went down with Merriam to the silent depths of Cayuga Lake at Ithaca was also a rare type of humanity. She was a South Carolina girl, from Laurens county, who had earned her own way from her father's plantation through school and college at Columbia and into the Law Department of Cornell University. As a school teacher in her native State she had obtained the means of educating a younger sister. By public authority in South Carolina, she had been engaged to prepare a report on the Industrial Education of Women. It is to be hoped that Miss Yeargin had completed her work, as Merriam had finished his, and that their labors will enter into the educational life of the New South.

Professor JOHN B. CLARK, *Amherst College.*

My strongest impressions concerning Dr. Merriam are of a kind that cannot be committed to paper. I cannot even try to describe the charm that his personality had for me. It is, however, possible to speak of him as a student and a scientist. He made the impression of a man who was des-

tined to be a leader of thought. Originality, analytical power, an accurate judgment and moral earnestness were his characteristics. He would have entered unexplored fields of research. What he would have given to students and readers would have had a fascination due to the elements of novelty that it would have contained, but it would have been tested by a scholarly comparison with old and accepted truth. He was, in short, a leader who had not had time to assume the position of leadership. He was a captain-elect, with his field of action in the future.

It is profoundly to be wished that the constituency that was waiting for him, and has now lost him, may still get inspiration from his life. The winning influence of his personality can now affect them only as they get a faint impression of it through the words of others; yet some impression of this kind, joined to a knowledge of the extent and value of the positive work that Dr. Merriam would have done, should strengthen the purposes of many men. There must be rescued some fruits of the labor that he had not time to perform. Very many could have had him as a teacher and a guide, and the mere knowledge of what that teaching and guidance would have been ought to have its fruit in purposeful lives.

I count it as one of the larger privileges of my office as an instructor to have had for a short time the inspiriting effect of his presence as a pupil. He sat near me in the lecture-room, and I was able to see not merely that he was apprehending what was offered, but also that he was testing it in its relations to known scientific truth, and that he was pursuing the inquiries started, and seeking for more and remoter truth. He showed the pathfinding impulse of the original thinker most clearly in the discussions following the lectures and in the further intercourse that came by personal association and correspondence. Vigor and accuracy of thought he revealed in all these relations; and yet, perhaps, the strongest single impression that he has left is that of nobility of character. In the quality of his ideals and in the strength

of his purpose lay the assurance of a life-work of inestimable value. It is a work that we cannot afford to lose, and one that we shall not utterly lose if the remembrance of his life has its natural effect. It must be an unresponsive nature indeed, in which Dr. Merriam's example, as supplemented by the knowledge of the work that he would have done, does not awaken a purpose to do what may be done in the way of similar service. By the books that he had no time to write, he should still inspirit us.

Dr. SIDNEY SHERWOOD, *Johns Hopkins University.*

There was a rare charm in Merriam's personality. He was frank. He could not dissemble. On closer acquaintance with him, the lines of one's first impressions were simply graven deeper. Resolute, vigorous, aggressive, yet singularly modest and generous in his attitude toward others, he was a man who, though keen to win, was keener to win fairly, and who had unstinted applause for the achievements of his rivals. In fact, he counted his rivals his friends. I shall never forget the naïve loyalty with which he magnified the intellectual superiority of one of his friends whom he had vanquished in argument. Alive to the superiority of his own argument, he remained unconscious of the personal superiority which it implied.

As a fellow-student with him, and later as his instructor, I had always an admiration, not free from envy, for the quickness of his mental insight and the energy and logical acuteness with which he followed up his discoveries. With his practical training and common-sense judgment of men and things, combined with his power of keen analysis and systematic reasoning, I believe that he would have achieved much toward the establishment of the system of economic theory looked for by the next generation; a system, that is, based on economic life and not on metaphysics. His accomplished work, however small in amount, goes to confirm this belief.

I shall miss him sadly as a fellow-worker in economics and

as a friend. A noble ambition, a courage, a fine achievement like Merriam's cannot die. The deep waters of Cayuga Lake cannot hold them. What could be said of the life and death of this young scientist truer or better than Vergil's lines!—

> "Felix qui potuit rerum cognoscere causas
> Atque metus omnes et inexorabile fatum
> Subjecit pedibus, strepitum Acherontis avari."

Dr. D. I. GREEN, *Johns Hopkins University.*

Had Lucius Merriam lived he would have attained high honors and distinction through work well done; yet those who knew him best would have honored and loved him not so much for what he did as for what he was. His life-work, so well begun, so full of promise, is now a fragment; but his character was already formed and has not been lost,—a character of rare symmetry, beauty and strength. All who knew Merriam well will cherish his memory, for in him they found one whom they could trust, always frank, sincere, without a trace of hidden motive or a motive which need be concealed. He was thoroughly conscientious, diligent, cheerful, sympathetic, companionable. We mourn the loss of a valued friend, we regret that the world has lost the promised service, but we who were Merriam's companions are grateful for the memories that remain.

President J. G. SCHURMAN, *Cornell University.*

From my slight and, alas! too short acquaintance with Dr. Merriam, I got the impression of a man of earnest purpose, serious character and transparent honesty. I understood that he was succeeding well as a teacher, and I thought him painstaking and industrious. I happened to see more of him than of most of the new instructors, as he was fond of exercise, and I used to meet him on my walks. His sudden death cast a gloom over the entire University.

Professor J. W. JENKS, *Cornell University.*

I am very glad that it has been decided to publish some account of Dr. Merriam's life and work. His work in Cornell University fully justified the high estimate of his ability given me by his friends before he came here. I fully agree that in losing him, we have lost one of the ablest and most promising of the younger economists of the country. In the Seminary for advanced work in economics, his criticisms and suggestions were exceedingly helpful and were marked by much independence and rare judgment. In his work of teaching he had already won the hearty regard and esteem of his classes, and seemed to have the power to an unusual degree of arousing his students to most diligent and thorough work. We feel his loss keenly for this reason, but especially because his courteous bearing, his sincerity of character, his genuine manliness had won the hearty affection of us all.

Mr. T. N. CARVER, *Fellow in Cornell University.*

The death of the lamented Dr. L. S. Merriam was a loss to me in a threefold sense. As a personal friend, he had, by the warmth of his heart and the purity and elevation of his mind, gained a strong hold upon my affections. As an instructor he showed a kindliness, a carefulness and a thoroughness of work which made him an invaluable help. In addition to these personal considerations, I feel deeply, as every lover of intellectual progress must, the loss to the cause of science occasioned by the untimely end of one whose talents and enthusiasm promised so much.

My relations with Merriam during the short time we were together in Ithaca were most pleasant, and their sudden termination has been most painful. Being together in a place where neither of us had many acquaintances, we found that our previous friendship had already become greatly strengthened. His continued kindness placed me under personal obligations of a permanent nature. As a student and fellow in Cornell University, I had a better opportunity to hear the free and unbiased opinions entertained by the

students toward him, than one in any other position could have had. Although his lectures and methods were freely discussed, I have not heard one word spoken, otherwise than complimentary, either of his gentlemanliness or his ability. His earnestness and sincerity may be inferred from the fact that he took upon himself the responsibility for any apparent lack of interest shown by members of his classes. In private conversation he more than once spoke to me about his apparent inability to arouse the interest of certain members of one of his classes. But instead of holding the students responsible, he spoke of their delinquency as though it were due to his own failure to make the subject sufficiently interesting,—an opinion in which few of his students would concur.

During our frequent afternoon walks we used to talk over our work at Johns Hopkins University. He seemed to bear the kindliest feelings toward everybody in Baltimore. He would often recall the work in the Seminary, in the Economic Conference, and especially in the "Marshall Class."[1] Upon the last subject he was especially enthusiastic, and would dwell with great interest upon the spirited discussions there carried on. His references to the individual members of the Department of History and Politics always displayed the most friendly interest, and revealed under his quiet, scholarly bearing a heart of unusual warmth.

But multiplication of words cannot convey the feeling of loss at the death of so rare a man, much less can it make his memory more dear. He was one of the clearest-headed, highest-minded and warmest-hearted men I have ever known. With these poor words do I pay my tribute of respect to his memory.

FRANK I. HERRIOTT, PH. D. (J. H. U.),
University of Pennsylvania.

If thinking on the virtues of companions whom death has taken from us makes for righteousness, those of us who knew

[1] A small group of advanced students who read critically, under Dr. Sidney Sherwood's leadership, Professor Marshall's Principles of Economics in the winter of 1892-93.

Lucius S. Merriam have much that will stimulate hope and stiffen our courage in the strife we must ever wage to live better lives in this work-a-day world. His scholarly ability and integrity and intense, persistent industry—always an inspiration and spur to us—I shall not dwell upon here. That which will ever hover in my memory is the remembrance of the lovable "inner self" of our late student-fellow that I came to know so well in my three years' association with him in the lecture-room and in our walks and talks. His was one of the rarest of natures. The artlessness and simplicity and the impulsiveness of a boy, combined with a steadfast sincerity and kindliness of disposition, were to me the most striking characteristics of his mental and moral make-up. There was an infectious energy and buoyancy in his actions and words. He was ever on the alert to detect excellence in the work and characters of his associates, and he was quick to give the kindly word of praise. He was ever eager to live and learn and to do a good work in the world. The question whether life was worth living never entered his mind, he was so fully occupied in making it worth living.

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Dr. L. S. Merriam, Instructor in Political Economy at Cornell University, and one of the most promising young economists in the country, was drowned in Cayuga Lake last month. Dr. Merriam was a member of the Academy and one of its most interested and enthusiastic supporters. Our members will remember the paper on "The Theory of Final Utility in its Relation to Money and the Standard of Deferred Payments," submittted by Dr. Merriam on December 7, 1892, and printed in the *Annals* for January, 1893. He had submitted a brief paper to the Academy just before his death, which will be printed in the *Annals.* It is a matter of melancholy interest to note that the science of Political Economy has lost some of its greatest exponents in the same way. Stanley Jevons, in England, and Adolph Held, in Ger-